

NASA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

(NASA-CR-128789) SUBSONIC, TRANSONIC, AND
SUPERSONIC STABILITY AND CONTROL
CHARACTERISTICS OF THE -147B SPACE
SHUTTLE ORBITER (Chrysler Corp.) 258 p
HC \$15.00

N74-13586

Unclas
28516

G3/31

CSCI 22B

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

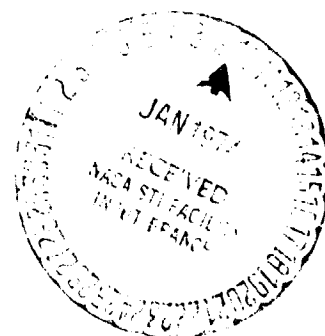
HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



**CHRYSLER
CORPORATION**



October, 1973

MS-DR-2061
NASA CR-128,789

SUBSONIC, TRANSONIC, AND SUPERSONIC
STABILITY AND CONTROL CHARACTERISTICS OF
THE -147B SPACE SHUTTLE ORBITER

By

R. C. Mennell, Rockwell International

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: NAAL Trisonic 276
NASA Series No.: OA68
Test Date: 20 June - 30 June, 1973

FACILITY COORDINATOR:

R. B. Russell
Rockwell International, B-1 Division
Mail Code BD-02, Dept. 56/134
Los Angeles International Airport
Los Angeles, California 90009

Phone: (213) 670-9151-X3343

PROJECT ENGINEER:

R. C. Mennell
Rockwell International, B-1 Division
Mail Code BD-02, Dept. 56/134
Los Angeles International Airport
Los Angeles, California 90009

Phone: (213) 670-9151-X3343

DATA MANAGEMENT SERVICES:

This document has been prepared by:

for D. A. Sarver
Liaison Operations

Steve Wesley Brown
Data Operations

W. A. Morgan
Steve Wesley Brown

This document has been reviewed and is approved for release.

FOR N. D. Kemp
Data Management Services

J. G. Gley

Chrysler Corporation Space Division assumes no responsibility for the data presented herein other than its display characteristics.

SUBSONIC, TRANSONIC, AND SUPERSONIC
STABILITY AND CONTROL CHARACTERISTICS OF
THE -147B SPACE SHUTTLE ORBITER

By

R. C. Mennell, Rockwell International

ABSTRACT

Experimental aerodynamic investigations were conducted on 0.015 scale representations of the VL70-000139B (Model No. 42-0) and VL70-000147B (Model No. 49-0) Space Shuttle Orbiter configurations in the Rockwell International Trisonic Wind Tunnel from June 20, 1973 to June 30, 1973. The primary test objective was to define subsonic, transonic, and supersonic stability and control characteristics of the -147B Orbiter.

Six-component aerodynamic force and moment data for the -147B Orbiter were recorded over an angle of attack range of -2° to 30° at Mach numbers of 0.6, 0.9, 1.2, 2.0, and 3.0. Reynolds numbers of 5.0, 7.0, 8.0, and $9.0 \times 10^6/\text{ft.}$ were tested at Mach numbers less than 2.0 while testing at Mach 2.0 and 3.0 was conducted at a Reynolds number of $11.0 \times 10^6/\text{ft.}$

Elevon deflections of 0° , $+15^{\circ}$, -20° , and -40° ; body flap deflections of 0° , $+13.75^{\circ}$, and -14.25° ; and rudder flare angles of 24.92° and 54.92° were tested on the -147B Orbiter over the entire Mach number range.

Testing of the -139B Orbiter (Model 42-0) was for data verification and configuration comparison purposes only. The baseline configuration was tested at Mach numbers of 0.6 and 1.2 with a Reynolds number of $7.0 \times 10^6/\text{ft.}$

Both orbiter configurations were sting mounted on a Task type 1.5 inch internal balance and associated support hardware. Base pressure measurements were obtained from model orifices for use in force data correction.

(THIS PAGE INTENTIONALLY LEFT BLANK)

TABLE OF CONTENTS

	Page
ABSTRACT	111
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	4
CONFIGURATIONS INVESTIGATED	7
TEST FACILITY DESCRIPTION	8
DATA REDUCTION	9
TABLES	
I TEST CONDITIONS	11
II DATA SET COLLATIONS	12
III MODEL COMPONENT DIMENSIONAL DATA	14
FIGURES	
MODEL	21
DATA	26
APPENDIX - TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Axis systems.	21
2	Model sketches.	
	a. General arrangement -147B Orbiter.	22
	b. Sign convention for control surfaces.	23
	c. Base pressure locations.	24
3	Model installation photographs.	
	a. Rear view, TWT installation.	25
	b. Front view, TWT installation.	25

INDEX OF DATA FIGURES

TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
Reynolds number effect - ELEVON = -40 degrees	(A)		RN/L	1-33
Reynolds number effect - ELEVON = 15 degrees	(A)		RN/L	34-66
Elevon Effectiveness	(A)		ELEVON	67-121
Body Flap effectiveness	(B)		BFLAP	122-169
Effect of wing	(B)		Configuration	170-193
Configuration comparison for 1393 and 147B	(B)		Configuration	194-217

SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) CN, CL, CAF, CABT, CDF, CIM, XCP/L, L/DF vs. ALPHA
CN, CL vs. CIM; CL vs. CDF
- (B) CN, CL, CAF, CABT, CDF, CIM, XCP/L, L/DF vs. ALPHA
CN, CL vs. CIM; CL vs. CDF; CL vs. L/DF

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
\bar{c} _{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream
bc	balance cavity

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(P_b - P_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

ADDITIONS TO NOMENCLATURE
FOR
NAAL TWT 276 (OA68)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
δ_f	BFLAP	body flap, surface deflection angle, positive deflection, trailing edge down; degrees.
$C_{A_{bc}}$	CABC	cavity axial force coefficient; $C_{A_{bc}} = - \left(\frac{P_{bc} - P_s}{q} \right) \left(\frac{A_{bc}}{S_{REF}} \right)$
$C_{A_{bT}}$	CABT	base-force coefficient + cavity axial force
δ_e	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_R	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge to the left; degrees.
δ_{rf}	RUDFLR	rudder flare, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{rf} = (\delta_{rL} + \delta_{rR})/2$, positive deflection; degrees.
XCP/L_B	XCP/L	center of pressure as a percent of body length (L_B); $XCP/L_B = C.G. \text{ (in. aft of nose)} - \frac{C_m}{C_N} / L_B$

CONFIGURATIONS INVESTIGATED

The models used for this test period were 0.015 scale representations of the VL70-000139B and VL70-000147B Space Shuttle Orbiter Configurations. The basic models were of the blended wing-body design utilizing double delta wings ($75^\circ/45^\circ \Lambda_{L.E.}$), full span elevons (unswept hingelines), centerline vertical tails with rudder and/or speed brake capability, canopies, and orbital maneuvering systems (OMS) mounted on the aft fuselage sidewalls. Configuration differences between the -139B and -147B models consisted of variations in fuselage lines and wing position (see dimensional data).

Each model was constructed around ARMCO 17-4 steel balance blocks with 2.00 inch balance cavities sleeved to accept the 1.5 inch Task MK XXII internal balance. All model body mold lines, fairings, wings, etc. attach directly to the balance blocks. Base pressure and balance chamber pressure orifices were installed in the model base region to provide pressure measurement capability.

The following letter designations were used to describe the -139B and -147B orbiter configurations:

<u>Symbol</u>	<u>Definition</u>
B19	-139B baseline fuselage
B22	-148B baseline fuselage
C7	Canopy common to -139B and -147B
E23	Elevon common to -139B and -147B
F5	Body flap common to -139B and -147B
M4	OMS pods common to -139B and -147B
R5	Rudder/speed brake common to -139B and -147B
V7	Vertical tail common to -139B and -147B
W107	-139B baseline wing ($75^\circ/45^\circ \Lambda_{L.E.}$)
W111	-147B baseline wing ($75^\circ/45^\circ \Lambda_{L.E.}$)

TEST FACILITY DESCRIPTION

The Rockwell International Trisonic Wind Tunnel is an intermittent blow down facility with a 7' x 7' tandem test section capable of testing force, duct, pressure, and flutter models at Mach numbers from 0.1 to 3.5.

Two synchronous motor-driven centrifugal compressors, operating in series, supply dry air at a rate of 10 lb/sec. to eight storage spheres having a total volume of 214,000 cu. ft.. The air is dried to a moisture content of 0.0001 lb. or less of water per lb. of dry air (approx. -35°F dew point) and stored at a pressure of ten atmospheres. Flow from the air storage spheres is regulated by a servo controlled valve. The eight foot diameter valve opens within two seconds to control and stabilize the settling chamber at a preselected pressure.

Downstream of the settling chamber is a fixed nozzle which provides a transition from the circular cross-section of the settling chamber to the rectangular cross-section of the variable nozzle. Two seven foot wide steel plates, supported between parallel walls by hydraulic jacks, form the floor and ceiling of the flexible nozzle section. Changes in nozzle contours to produce variations in Mach number are accomplished by means of these jacks and require 30 to 50 minutes to complete.

Two test sections, for supersonic, transonic, and subsonic testing are 7 ft. wide by 7 ft. high and are permanently installed in a tandem arrangement. The standard supersonic test section (for testing at Mach numbers greater than 1.3) is in the downstream end of the flexible nozzle. The test section for subsonic and transonic operation is located in the downstream end of the porous wall area. An access door to the test area is located in the variable diffuser.

The variable diffuser downstream of the porous wall area may be adjusted to provide subsonic Mach number control, to generate transonic Mach numbers, and to minimize start time for supersonic testing with models having high tunnel blockage.

An equivalent 5° conical expansion angle is provided in a fixed diffuser which completes the basic tunnel circuit. Downstream of the diffuser is a sound abatement muffler building where the air is exhausted to the atmosphere.

DATA REDUCTION

The aerodynamic force and moment data presented were measured by the Task Corporation 1.5 inch MK XXII internal strain gage balance. The data have been corrected for base and balance chamber pressure effects, subsonic and transonic wall interference effects, sting and balance deflections, and model weight tare.

The corrections to the axial force were accomplished in the following manner:

$$C_{A_T} = C_A - C_{A_{bc}} - C_{A_b} - C_{A_T}$$

where:

$$C_{A_{bc}} = - \left(\frac{P_{bc} - P_s}{q} \right) \left(\frac{A_{bc}}{s} \right)$$

$$\text{and: } C_{A_b} = - \left(\frac{P_b - P_s}{q} \right) \left(\frac{A_b}{s} \right), \quad P_B = 1/6 (P_{B_1} + \dots + P_{B_6})$$

$$\text{and: } C_{A_T} = \text{Model axial force weight tare}$$

The following reference dimensions were used for reducing the aerodynamic data to coefficient form:

Symbol	Definition - 147B Configuration	Value	
		Full Scale	Model Scale
A _b	Area of model base (with OMS), ft ²	292.5333	0.06582
	(without OMS), ft ²	233.7778	0.05260
A _{bc}	Area of model balance cavity, ft ²	122.7556	0.02762
S _{ref}	Area of wing, ft ²	2690.2222	0.6053
XMRP	Center of gravity, fus. sta.	1076.4733	16.1471
	Center of gravity, in. aft of nose	841.1400	12.6171
YMRP	Center of gravity, buttock plane	0.0000	0.0000
ZMRP	Center of gravity, waterplane	400.0000	6.0000
L _B	Length of model body, in.	1290.3000	19.3545
c̄	Wing MAC, in., reference length	474.8133	7.1222
b	Wing span, in., reference span	936.6800	14.0502

DATA REDUCTION (Continued)

<u>Symbol</u>	<u>Definition - 139B Configuration</u>	<u>Value</u>	
		<u>Full Scale</u>	<u>Model Scale</u>

All reference dimensions are the same as the -147B configuration except as noted:

A _b	Area of model base (with OMS), ft ²	267.6444	0.06022
	(without OMS), ft ²	208.8889	0.04700
A _{bc}	Area of model balance cavity, ft ²	151.1111	0.03400

TABLE I

[illegible]

TABLE II.

TEST: DA6B										DATE: JUNE 20-30, 1973																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
DATA SET/RUN NUMBER COLLATION SUMMARY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMET.		RS/VALUES		NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)										TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		α	β	$d\alpha$	$d\beta$	dR	dF		RM	0.4	0.9	1.2	2.0	3.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
RDR001	BdCpMhF5WmEz3VhR5	A	0	0	0	0	24.92	14.25	2	7.0	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

TABLE II. (Concluded)

[illegible]

TABLE III.

MODEL COMPONENT DIMENSIONAL DATA

BODY-B19

FUSELAGE CONFIGURATION PER ROCKWELL LINES VL70-0001398
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-0001398

DIMENSION	FULL SCALE	MODEL SCALE
LENGTH	1290.30 IN.	19.355 IN.
MAXIMUM WIDTH	267.60 IN.	4.014 IN.
MAXIMUM DEPTH	244.50 IN.	3.668 IN.
FINESS RATIO	4.822	4.022
AREA		
MAXIMUM CROSS-SECTIONAL	306.67 SQ.FT.	0.007 SQ.FT.

BODY-B22

FUSELAGE CONFIGURATION PER ROCKWELL LINES VL70-0001470
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-0001470

DIMENSION	FULL SCALE	MODEL SCALE
LENGTH	1290.30 IN.	19.355 IN.
MAXIMUM WIDTH	277.60 IN.	4.014 IN.
MAXIMUM DEPTH	244.50 IN.	3.668 IN.
FINESS RATIO	4.846	4.046
AREA		
MAXIMUM CROSS-SECTIONAL	306.67 SQ.FT.	0.007 SQ.FT.

CANOPY C7

CANOPY CONFIGURATION PER ROCKWELL LINES VL70-0001470
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-0001470

DIMENSION	FULL SCALE	MODEL SCALE
LENGTH		
F.S. 433 TO 670	237.0 IN.	3.555 IN.

TABLE III. (Continued)

ELEVON E23

UNSWEPT HINGELINE ELEVON CONFIGURATION PER ROCKWELL LINES VL70-0001478
DATA FOR 1 OF 2 SIDES.
SCALE MODEL = 0.015
DRAWING NUMBER VL70-0001478

DIMENSIONS	FULL-SCALE	MODEL SCALE
AREA	205.52 SQ.FT.	0.046 SQ.FT.
SPAN(EQUIVALENT)	353.34 IN.	5.300 IN.
INBOARD EQUIVALENT CHORD	114.70 IN.	1.722 IN.
OUTBOARD EQUIVALENT CHORD	55.00 IN.	0.825 IN.
RATIO MOVABLE SURFACE CHORD/ TOTAL SURFACE CHORD		
AT INBOARD EQUIV. CHORD	0.208	0.208
AT OUTBOARD EQUIV. CHORD	0.400	0.400
SWEEPBACK ANGLES		
LEADING EDGE	0.00 DEG.	0.000 DEG.
TRAILING EDGE	-10.24 DEG.	-10.240 DEG.
HINGELINE	0.00 DEG.	0.000 DEG.
AREA MOMENT (NORMAL TO HINGE LINE)	1548.07 FT(SQ FT)	0.00522 FT(SQ FT)

BODY FLAP-F5

BODY FLAP CONFIGURATION PER ROCKWELL LINES VL70-0001478
SCALE MODEL = 0.015
DRAWING NUMBER VL70-0001478

DIMENSION	FULL SCALE	MODEL SCALE
LENGTH	84.70 IN.	1.271 IN.
MAXIMUM WIDTH	267.60 IN.	4.014 IN.
AREA		
MAXIMUM CROSS-SECTIONAL	142.52 SQ.FT.	0.032 SQ.FT.
BASE	30.10 SQ.FT.	0.009 SQ.FT.

TABLE III. (Continued)

ONS PODS R4

ONS PODS CONFIGURATION PER ROCKWELL LINES VL70-000147B
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-000147B

DIMENSION	FULL SCALE	MODEL SCALE
LENGTH	346.00 IN.	5.190 IN.
MAXIMUM WIDTH	100.00 IN.	1.620 IN.
MAXIMUM DEPTH	113.00 IN.	1.695 IN.

RUDDER R5

RUDDER CONFIGURATION WITH SPEED BRAKE DEFLECTION CAPABILITY.
 PER ROCKWELL LINES VL70-000147B
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-000147B

DIMENSION	FULL SCALE	MODEL SCALE
AREA	106.30 SQ.FT.	0.024 SQ.FT.
SPAN(EQUIVALENT)	201.00 IN.	3.015 IN.
INBOARD EQUIVALENT CHORD	91.59 IN.	1.374 IN.
OUTBOARD EQUIVALENT CHORD	50.83 IN.	0.762 IN.
RATIO MOVABLE SURFACE CHORD/ TOTAL SURFACE CHORD		
AT INBOARD EQUIV. CHORD	0.400	0.400
AT OUTBOARD EQUIV. CHORD	0.400	0.400
SWEEPBACK ANGLES		
LEADING EDGE	34.830 DEG.	34.830 DEG.
TRAILING EDGE	26.250 DEG.	26.250 DEG.
HINGELINE	34.830 DEG.	34.830 DEG.
AREA MOMENT (NORMAL TO HINGE LINE)	526.13 FT(SQ FT)	0.00178 FT(SQ FT)

TABLE III. (Continued)

VERTICAL - V7

CENTERLINE VERTICAL TAIL, DOUBLE WEDGE AIRFOIL WITH ROUNDED LEADING EDGE.
 NOTE. SAME AS VS. BUT WITH MANIPULATOR HOUSING REMOVED.
 MODEL SCALE = .015
 DRAWING NUMBER VL70-000139

DIMENSION	FULL SCALE	MODEL SCALE
AREA (THEORETICAL)	425.92 SQ.FT.	0.09503 SQ.FT.
SPAN (THEORETICAL)	315.72 IN.	4.7358 IN.
ASPECT RATIO	1.675	1.675
RATE OF TAPER	0.507	0.507
TAPER RATIO	0.404	0.404
SWEETBACK ANGLES		
LEADING EDGE	45.000DEG.	45.000 DEG.
TRAILING EDGE	26.249DEG.	26.249 DEG.
0.25 ELEMENT LINE	41.130DEG.	41.130 DEG.
CHORDS		
ROOT (THEORETICAL)	260.50 IN.	4.0275 IN.
TIP (THEORETICAL)	100.47 IN.	1.62705 IN.
M.A.C.	199.01 IN.	2.99715 IN.
FUS. STATION OF 0.25 M.A.C.	1463.50 IN.	21.95250 IN.
V.P. OF 0.25 M.A.C.	635.522IN.	9.53203 IN.
B.L. OF 0.25 M.A.C.	0.00 IN.	0.00 IN.
AIRFOIL SECTION		
LEADING WEDGE ANGLE	10.000DEG	10.000 DEG
TRAILING WEDGE ANGLE	14.920DEG	14.920 DEG
LEADING EDGE RADIUS	2.0	0.030
VOID AREA	13.17 SQ.FT.	0.00296 SQ.FT.
BLANKETED AREA	0.00 SQ.FT.	0.00 SQ.FT.

TABLE III. (Continued)

WING W107

DOUBLE-DELTA WING CONFIGURATION PER ROCKWELL LINES VL70-0001398
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-0001398

DIMENSION	FULL SCALE	MODEL SCALE
*** TOTAL DATA ***		
AREA		
PLANFORM	2690.00 SQ.FT.	0.6053 SQ.FT.
SPAN (EQUIVALENT)	936.68 IN.	14.050 IN.
ASPECT RATIO	2.265	2.265
RATE OF TAPER	1.177	1.177
TAPER RATIO	0.200	0.200
DIHEDRAL ANGLE	3.500DEG.	3.500 DEG.
INCIDENCE ANGLE	6.500DEG.	0.500 DEG.
AERODYNAMIC TWIST	3.000DEG.	3.000 DEG.
TOE-IN ANGLE	0.000DEG.	0.000 DEG.
CANT ANGLE	0.000DEG.	0.000 DEG.
SWEEPBACK ANGLES		
LEADING EDGE	45.000DEG.	45.000 DEG.
TRAILING EDGE	-10.240DEG.	-10.240 DEG.
0.25 ELEMENT LINE	35.289DEG.	35.289 DEG.
CHORDS		
ROOT (WING STA. 0.0)	609.24 IN.	10.339 IN.
TIP (EQUIVALENT)	137.05 IN.	2.068 IN.
M.A.C.	474.01 IN.	7.122 IN.
FUS. STATION OF 0.25 M.A.C.	1136.09 IN.	17.053 IN.
U.P. OF 0.25 M.A.C.	299.20 IN.	4.488 IN.
O.L. OF 0.25 M.A.C.	102.13 IN.	2.732 IN.
AIRFOIL SECTION (XXX-64)		
ROOT	.10	.10
TIP	.12	.12
*** EXPOSED DATA ***		
AREA		
SPAN (EQUIVALENT)	1752.29 SQ.FT.	0.394 SQ.FT.
ASPECT RATIO	720.68 IN.	10.010 IN.
TAPER RATIO	2.058	2.058
CHORDS	0.245	0.245
ROOT	562.40 IN.	8.436 IN.
TIP	137.05 IN.	2.068 IN.
M.A.C.	393.03 IN.	5.895 IN.
FUS. STATION OF 0.25 M.A.C.	1105.31 IN.	17.700 IN.
U.P. OF 0.25 M.A.C.	300.20 IN.	4.503 IN.
O.L. OF 0.25 M.A.C.	251.76 IN.	3.776 IN.

TABLE III. (Continued)

WING W107 - Concluded

DOUBLE-DELTA WING CONFIGURATION PER ROCKWELL LINES VL70-000139B
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-000139B

DIMENSION	FULL SCALE	MODEL SCALE
*** LEADING EDGE CUFF ***		
LEADING EDGE CUFF PLANFORM AREA.	118.33 SQ.FT.	0.027 SQ.FT.
LEADING EDGE CUFF INTERSECTS		
FUSELAGE AT STATION	500.00 IN.	7.500 IN.
WING AT STATION	1083.50 IN.	16.253 IN.

WING-W111

DOUBLE-DELTA WING CONFIGURATION PER ROCKWELL LINES VL70-000147B
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-000147B

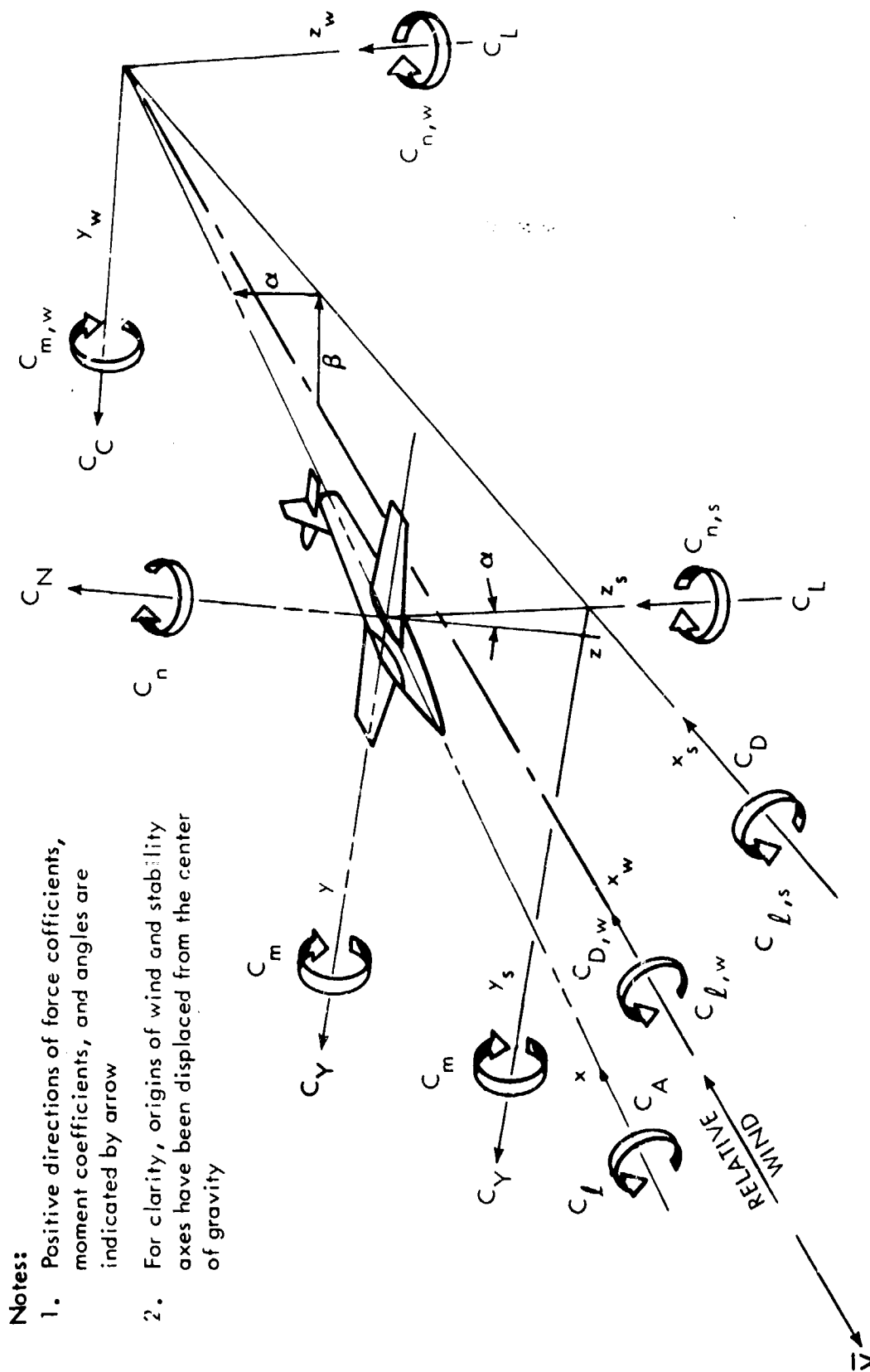
DIMENSION	FULL SCALE	MODEL SCALE
*** TOTAL DATA ***		
AREA (THEORETICAL)		
PLANFORM	2690.00 SQ.FT.	0.605 SQ.FT.
SPAN (THEORETICAL)	936.68 IN.	14.050 IN.
ASPECT RATIO	2.265	2.265
RATE OF TAPER	1.177	1.177
TAPER RATIO	0.200	0.200
DIHEDRAL ANGLE	3.500DEG.	3.500 DEG.
INCIDENCE ANGLE	0.500DEG.	0.500 DEG.
AERODYNAMIC TWIST	3.000DEG.	3.000 DEG.
SWEEPBACK ANGLES		
LEADING EDGE	45.000DEG.	45.000 DEG.
TRAILING EDGE	-10.240DEG.	-10.240 DEG.
0.25 ELEMENT LINE	35.209DEG.	35.209 DEG.
CHORDS		
ROOT (THEORETICAL) B.P.=0.0	689.24 IN.	10.339 IN.
TIP (THEORETICAL)	137.05 IN.	2.068 IN.
M.A.C.	474.01 IN.	7.122 IN.
FUS. STATION OF 0.25 M.A.C.	1136.09 IN.	17.053 IN.
M.P. OF 0.25 M.A.C.	295.70 IN.	4.436 IN.
B.L. OF 0.25 M.A.C.	102.13 IN.	2.732 IN.

TABLE III. (Concluded)

WING-VIII - Concluded

DOUBLE-DELTA WING CONFIGURATION PER ROCKWELL LINES VL70-000147B
 SCALE MODEL = 0.015
 DRAWING NUMBER VL70-000147B

DIMENSION	FULL SCALE	MODEL SCALE
*** EXPOSED DATA ***		
AREA (THEORETICAL)	1752.29 SQ.FT.	0.394 SQ.FT.
SPAN (THEORETICAL)	720.68 IN.	18.810 IN.
ASPECT RATIO	2.058	2.058
TAPER RATIO	0.245	0.245
CHORDS		
ROOT B.P.=108	562.40 IN.	8.436 IN.
TIP B/2=1.0	137.85 IN.	2.068 IN.
M.A.C.	393.83 IN.	5.895 IN.
FUS. STATION OF 0.25 M.A.C.	1185.31 IN.	17.780 IN.
U.P. OF 0.25 M.A.C.	296.70 IN.	4.451 IN.
B.L. OF 0.25 M.A.C.	251.76 IN.	3.776 IN.
AIRFOIL SECTION		
ROCKWELL MOD (NASA XXXX-64)		
ROOT B/2-Y0=199.0	0.10	0.10
TIP	0.12	0.12
*** LEADING EDGE CUFF ***		
DATA FOR (1) OF (2) SIDES		
PLANFORM AREA	110.38 SQ.FT.	0.027 SQ.FT.
LEADING EDGE INTERSECTS		
FUSELAGE M.L. AT STA.	500.0 IN.	7.500 IN.
WING AT STATION	1083.50 IN.	16.253 IN.



Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

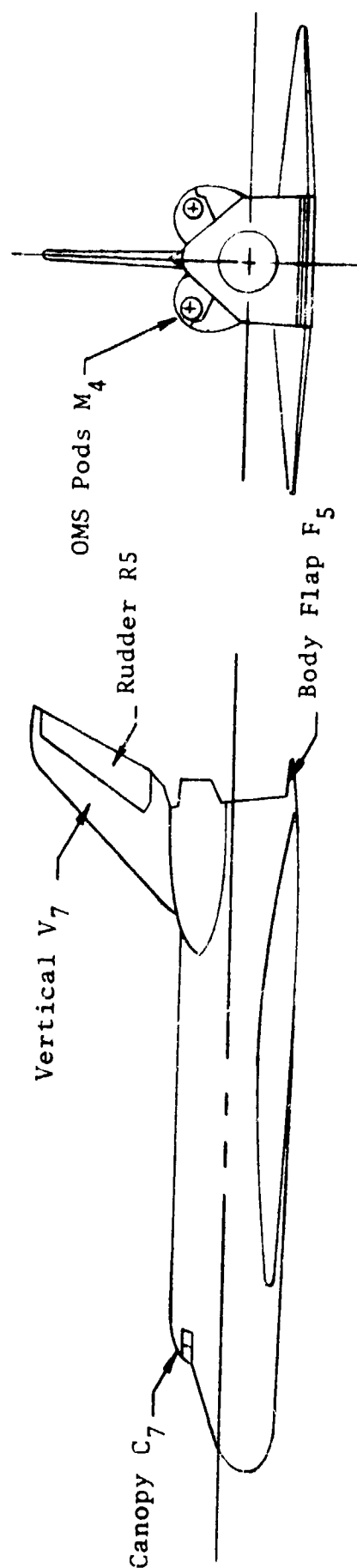
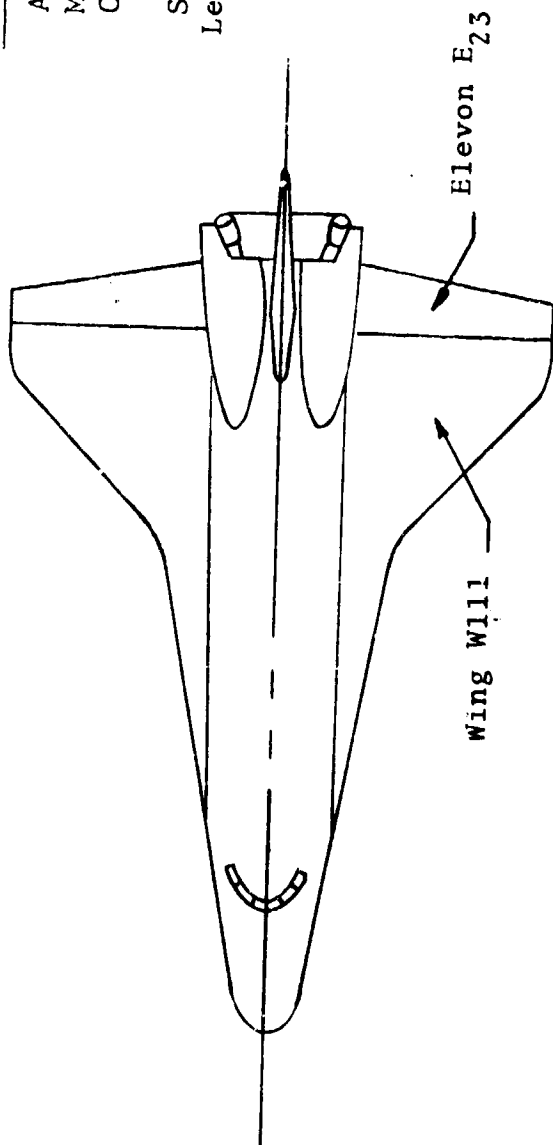
Figure 1. - Axis systems.

REFERENCE

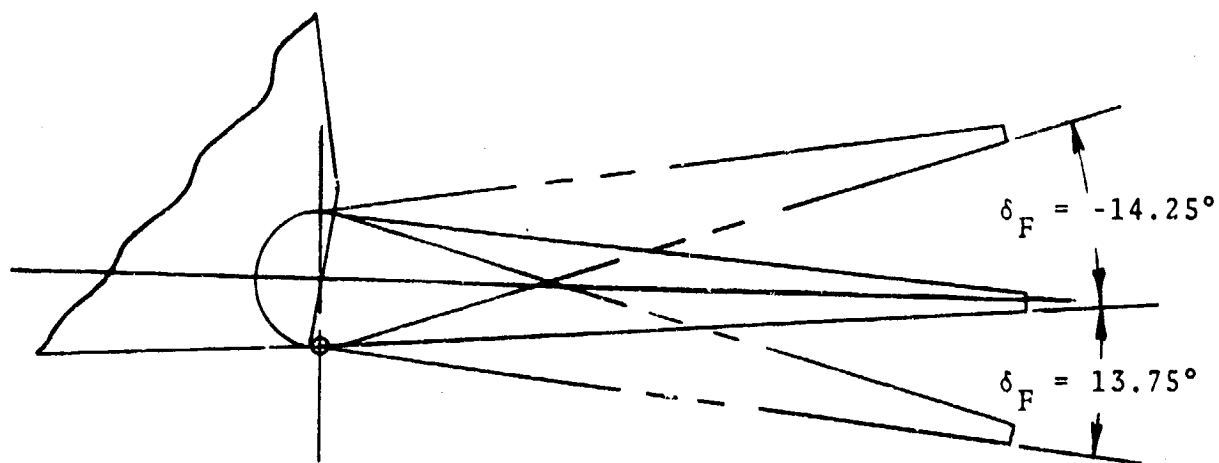
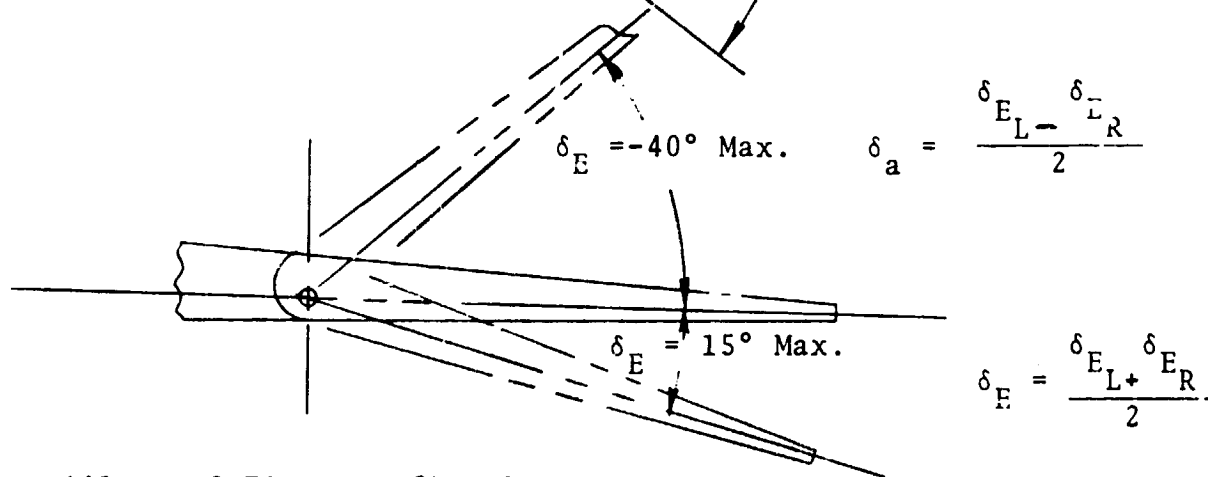
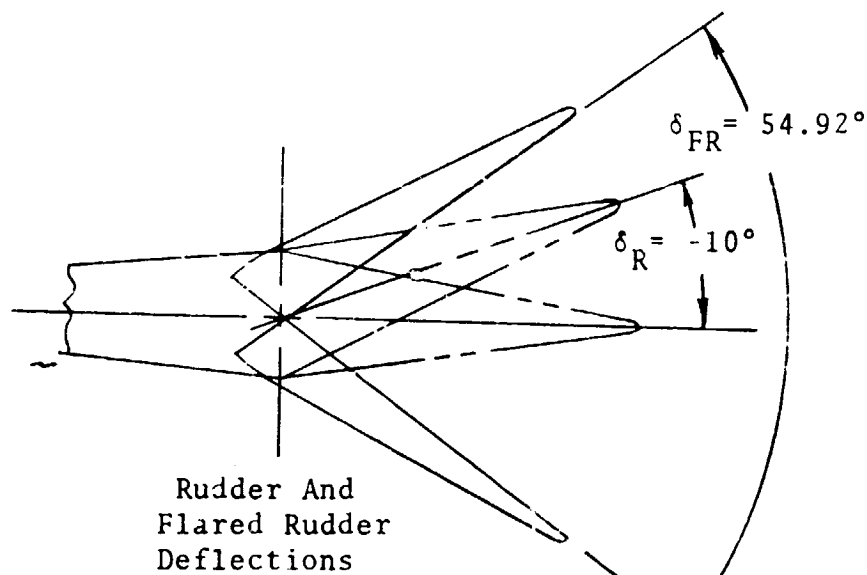
Area
Mac
C.G.
Span
Length

DIMENSION

Sw = 2690.00 ft²
Cw = 474.81 in
X = 841.14 in
Z = 400.00 in
bw = 936.68 in
LB = 1290.30 in



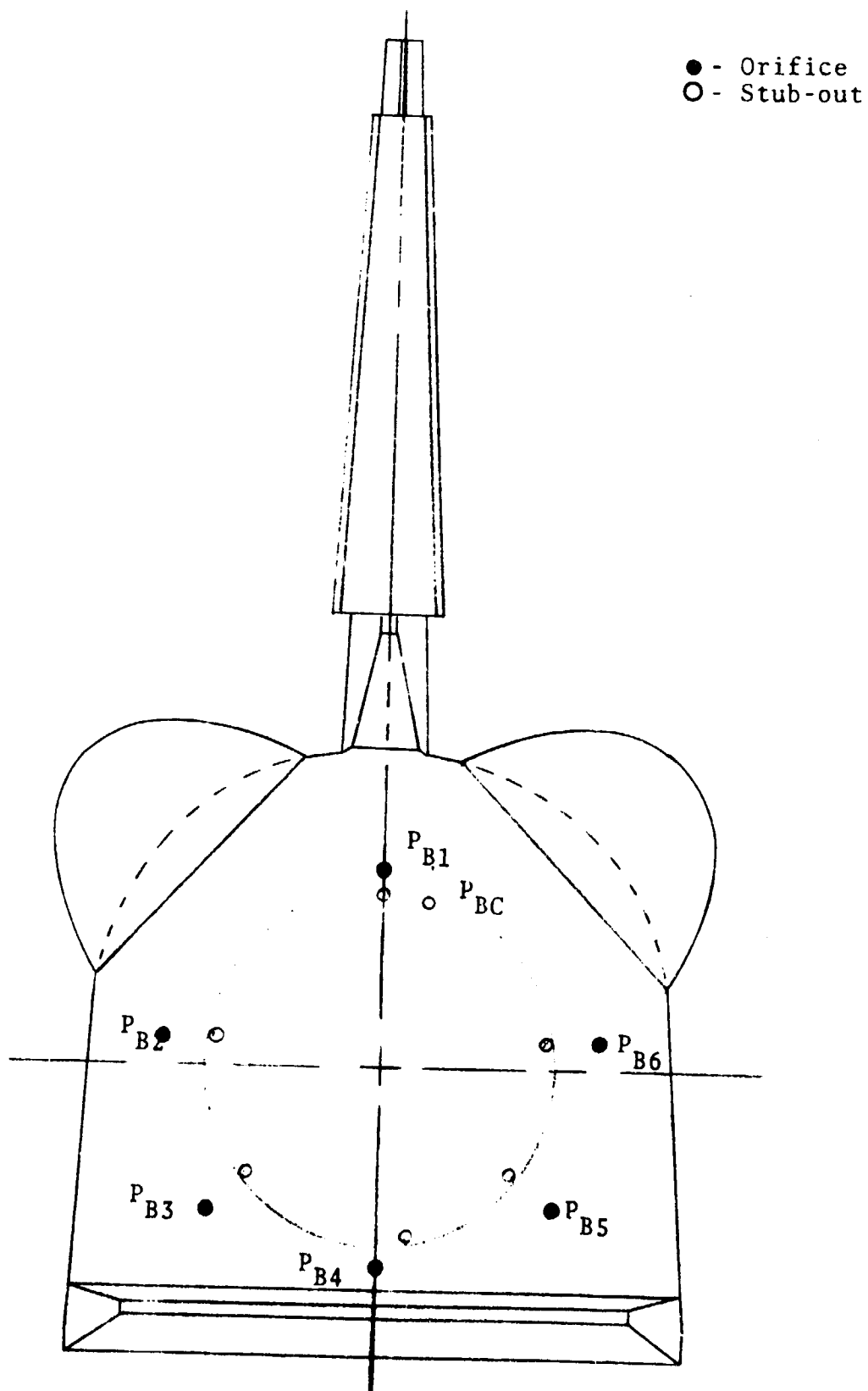
(a) General arrangement -147B Orbiter
Figure 2. - Model sketches.



Body Flap Deflections

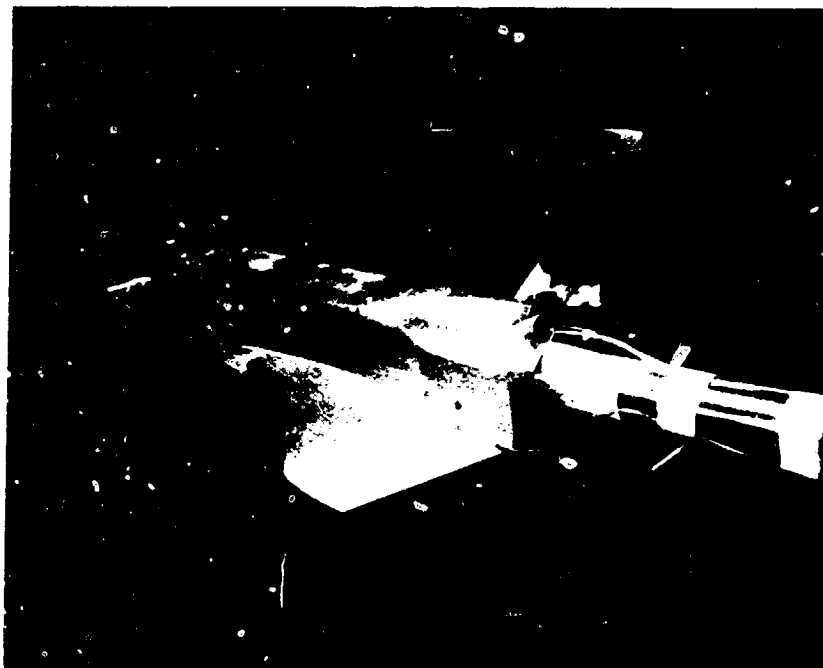
(b) Sign convention for control surfaces

Figure 2. - Continued.

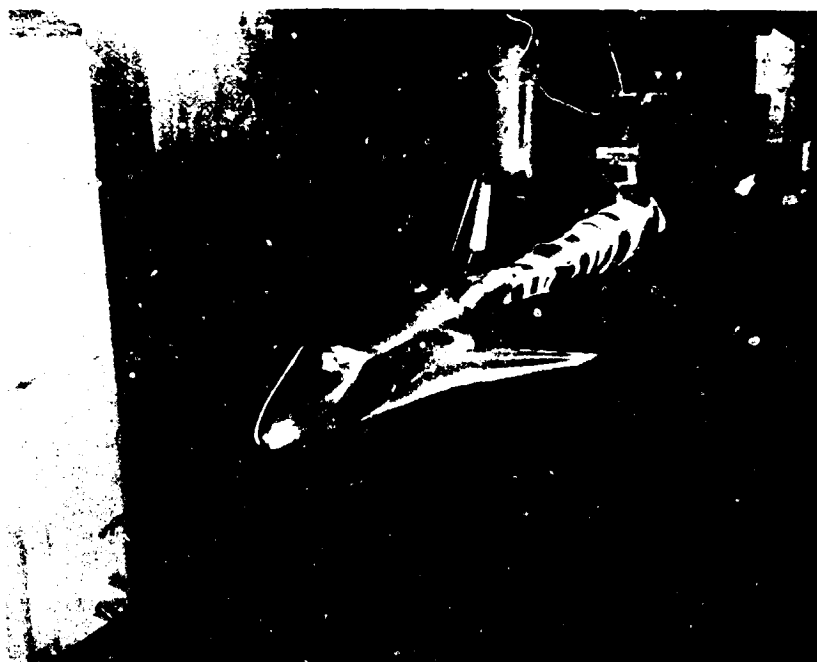


(c) Base pressure locations

Figure 2. - Concluded.



(a) Rear view, TWT installation

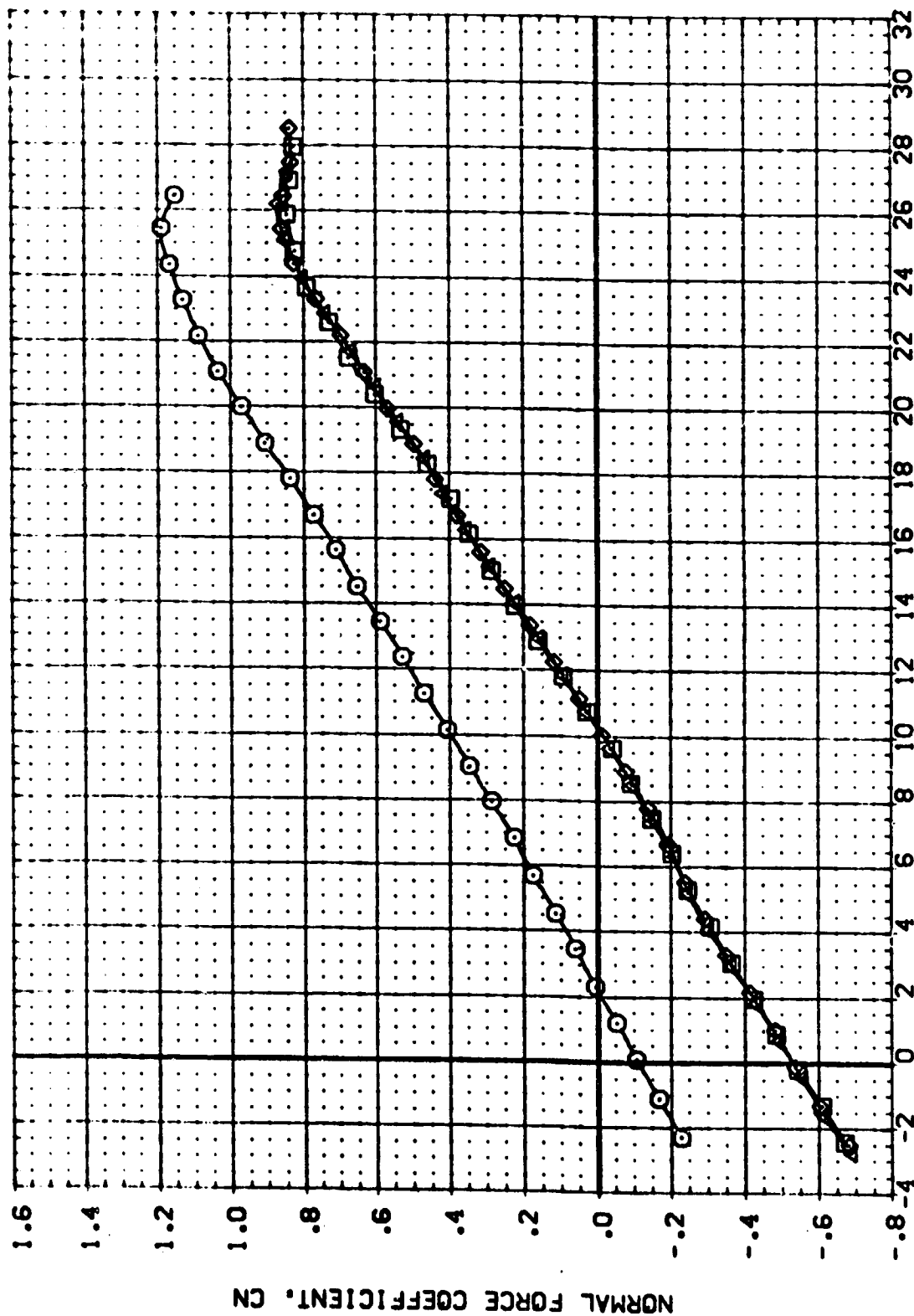


(b) Front view, TWT installation

Figure 3. - Model installation photographs.

DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV	ELEVON	RJOLR	BLAP	REFERENCE INFORMATION
000001	2A88 B22 C7 V4 FS V111 E23 V7 B5	7.000	0.000	24.920	-14.250	REF 6053
000002	2A88 B22 C7 V4 FS V111 E23 V7 B5	5.000	-10.000	24.920	-14.250	REF 7.000
000003	2A88 B22 C7 V4 FS V111 E23 V7 B5	7.000	-10.000	24.920	-14.250	REF 14.000
000004	2A88 B22 C7 V4 FS V111 E23 V7 B5	8.000	-10.000	24.920	-14.250	REF 2.000
						SCALE 6.000
						SCALE 6.000



ANGLE OF ATTACK, ALPHA, DEGREES

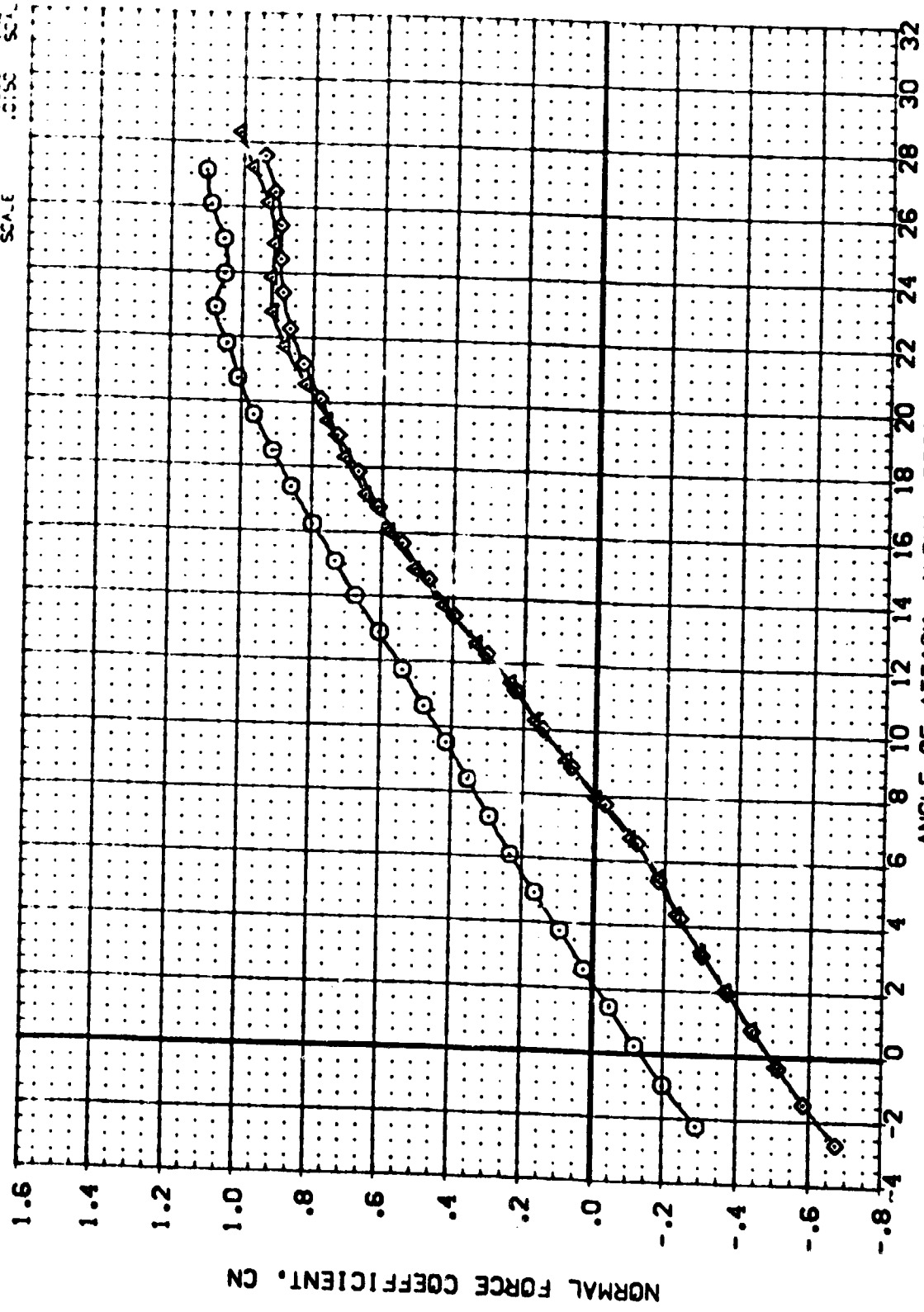
REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = .61

PAGE

DATA SET SYMBOL: 0808 B22 C7 M4 FS V111 E23 V7 R5
 0808 B22 C7 M4 FS V111 E23 V7 R5
 0808 B22 C7 M4 FS V111 E23 V7 R5
 0808 B22 C7 M4 FS V111 E23 V7 R5

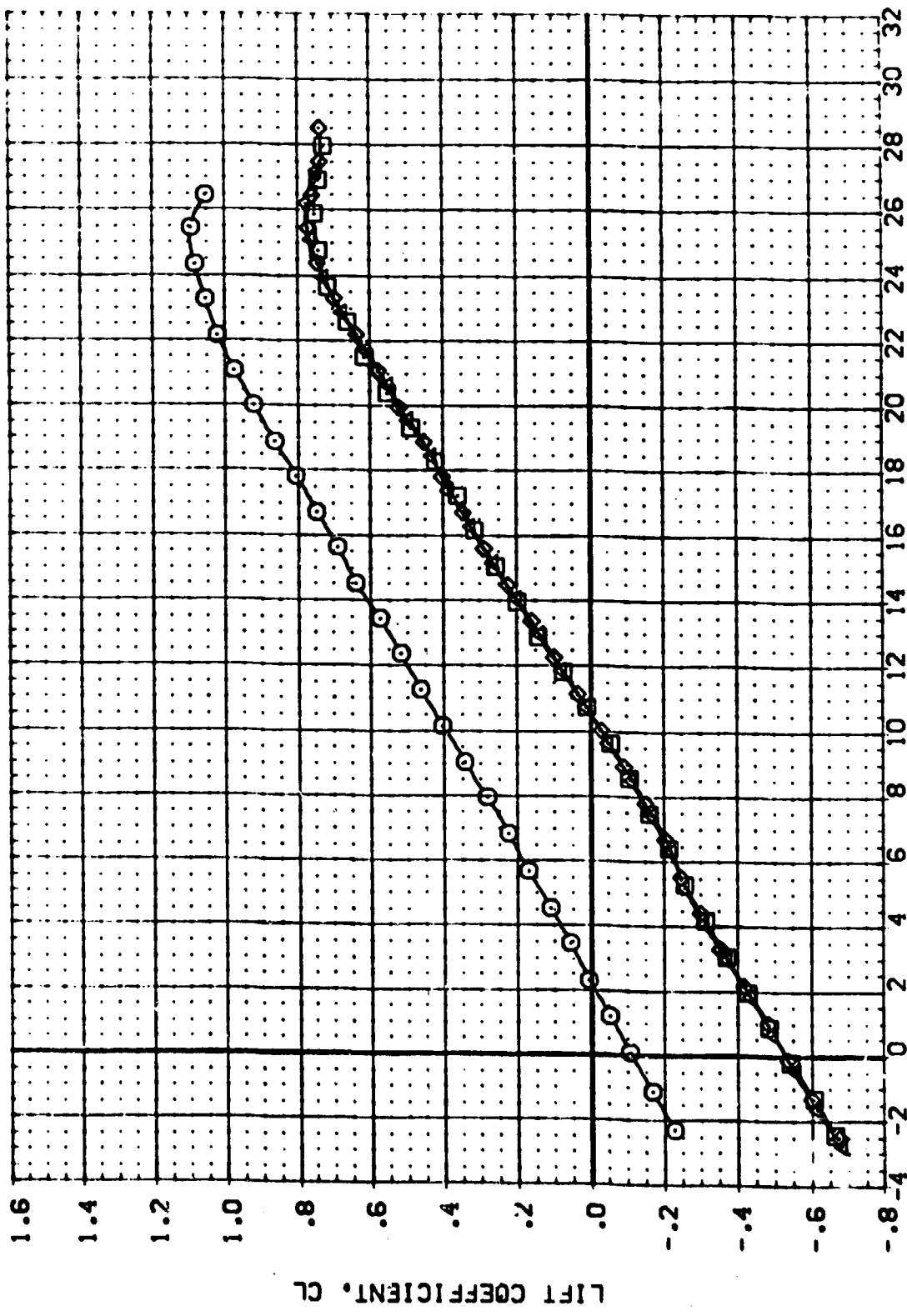
CONF: 0808 B22 C7 M4 FS V111 E23 V7 R5
 DATA: 0808 B22 C7 M4 FS V111 E23 V7 R5
 0808 B22 C7 M4 FS V111 E23 V7 R5
 0808 B22 C7 M4 FS V111 E23 V7 R5



REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(B)MACH = .91

DATA SET: SYMBOL	CONFIGURATION DESCRIPTION	REFL	ELEVON	R/OFLR	BFLAP	REFERENCE INFORMATION
(C) 01	0488 B22 07 M4 FS V111 E23 V7 RS	7.000	.000	24.920	-14.200	SREF
(C) 02	0488 B22 07 M4 FS V111 E23 V7 RS	5.000	-40.000	24.920	-14.200	REF
(C) 03	0488 B22 07 M4 FS V111 E23 V7 RS	7.000	-40.000	24.920	-14.200	BREF
(C) 04	0488 B22 07 M4 FS V111 E23 V7 RS	9.000	-40.000	24.920	-14.200	XREF
						YREF
						ZREF
						SCALE

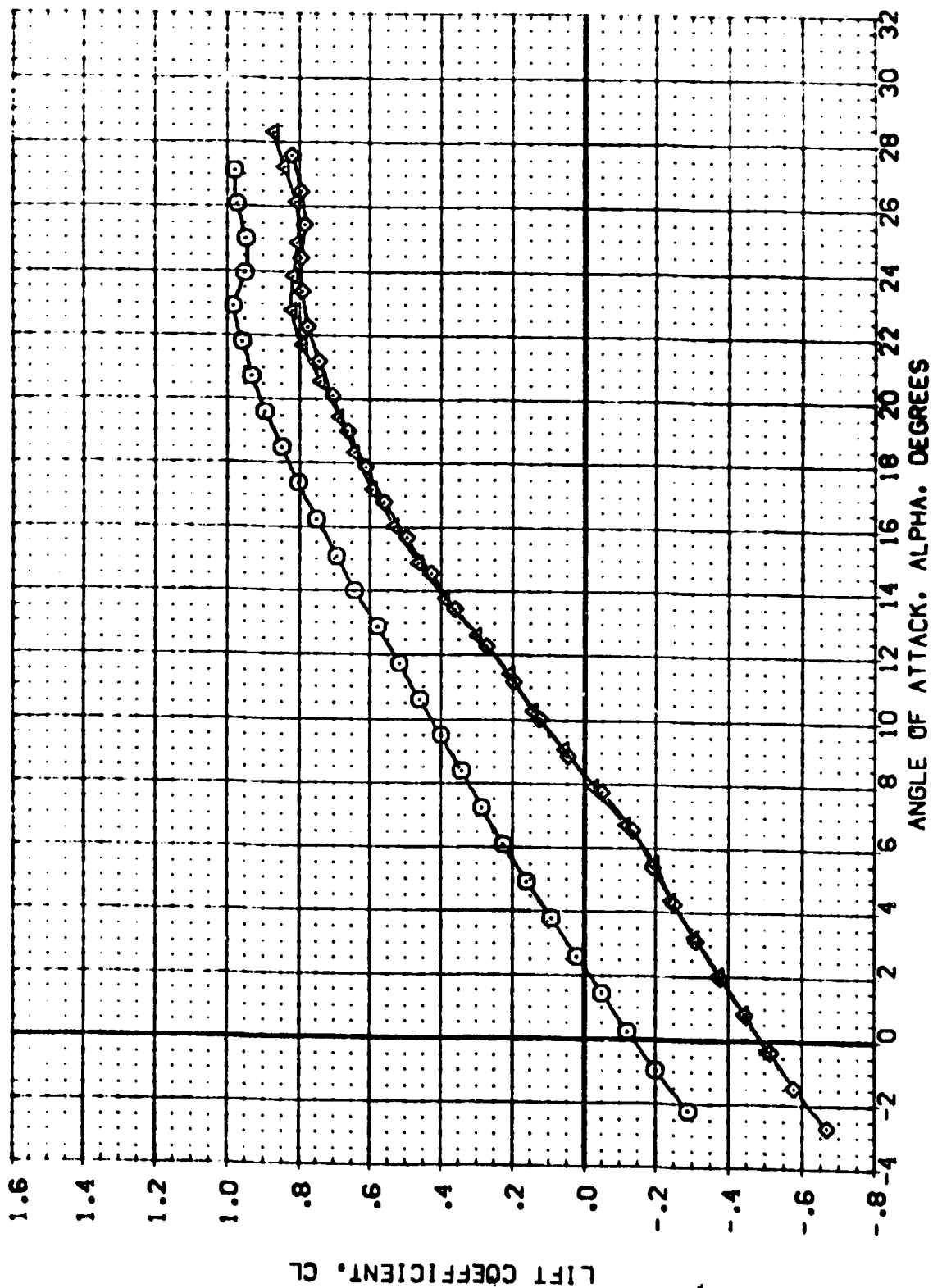


ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = .61

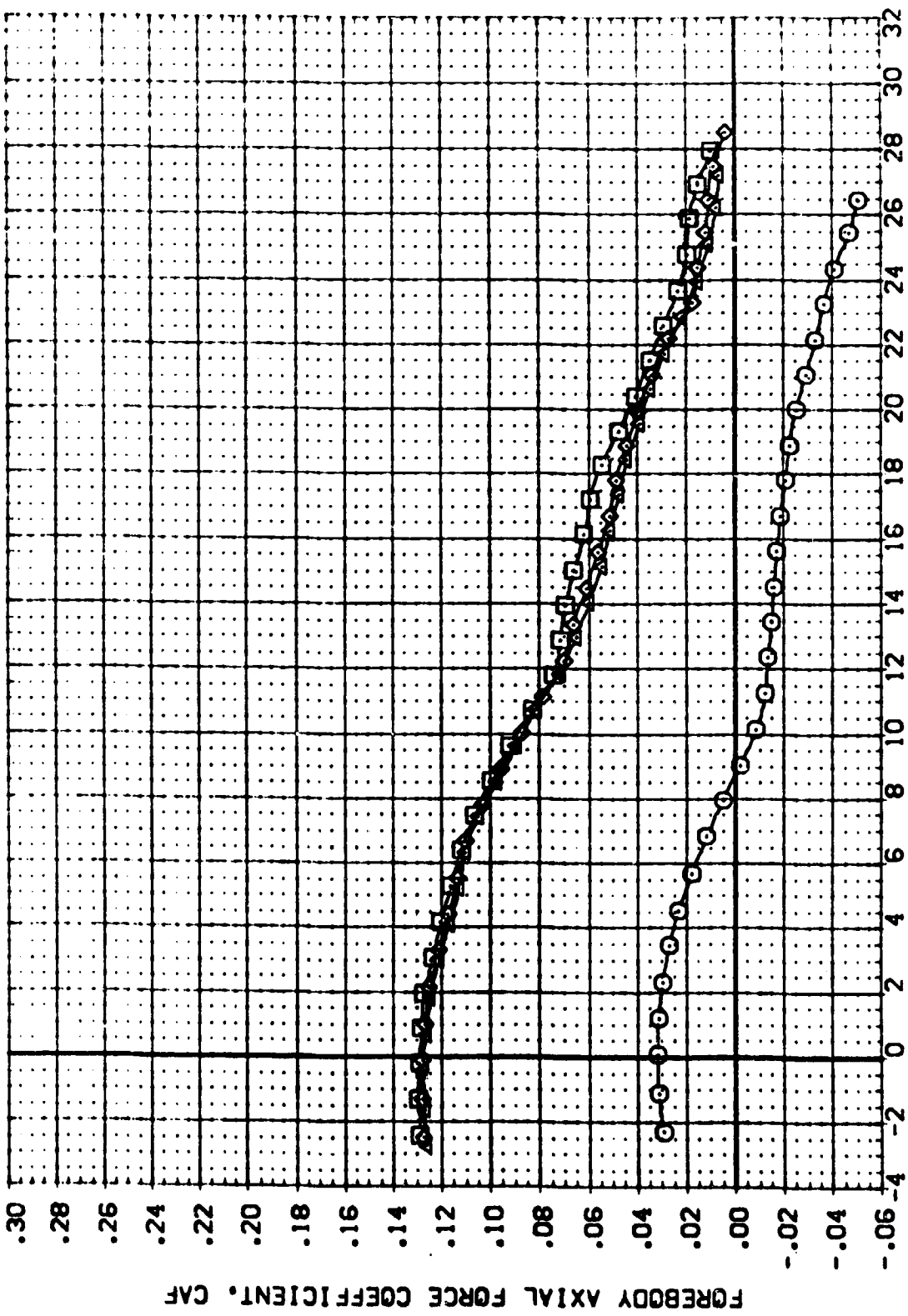
REFL	ELEV	RFLR	BLAP	REFERENCE	INFORMATION
7.0888	00000	24.9200	-14.2000	603	00000000
5.1088	00000	24.9200	-14.2000	714	00000000
7.0888	00000	24.9200	-14.2000	142	00000000
8.1088	00000	24.9200	-14.2000	6	00000000



REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

```
{B}MACH: = .91
```

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	RVL	ELEVON	ROLL R	BE AP	REFERENCE	IN SP-115
000001	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000002	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000003	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000004	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000005	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000006	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000007	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000008	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000009	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000010	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000011	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000012	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000013	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000014	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000015	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000016	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000017	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000018	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000019	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000020	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000021	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000022	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000023	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000024	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000025	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000026	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000027	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000028	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000029	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000030	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000031	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000032	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000033	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000034	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000035	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000036	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000037	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000038	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000039	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000040	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000041	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000042	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000043	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000044	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000045	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000046	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000047	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000048	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000049	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000
000050	C1	0100 922	0100 922	1.000	.000	24.920	1.000	6.000	6.000

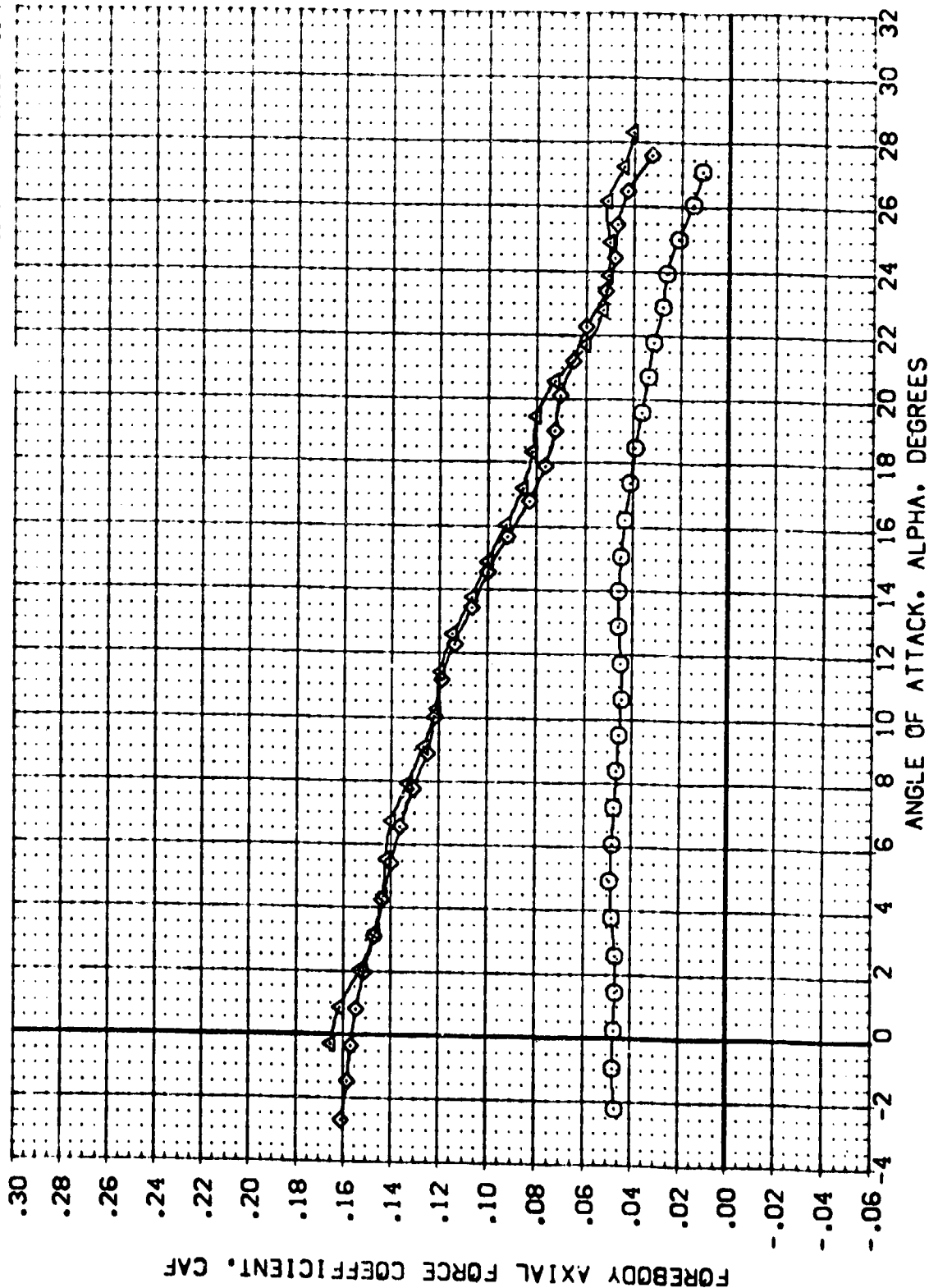


ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(M)MACH = .61

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	R/V	ELEVON	R/D OF R	B/LAP	REFERENCE INFORMATION
000001	0	CAS8 B22 C7 M4 FS VIII E23 V7 RS	7.000	0.000	24.920	-14.250	6053
000007	0	DATA NOT AVAILABLE	5.000	-40.000	24.920	-14.250	7.000
000008	0	CAS8 B22 C7 M4 FS VIII E23 V7 RS	7.000	-40.000	24.920	-14.250	14.000
000009	X	CAS8 B22 C7 M4 FS VIII E23 V7 RS	8.000	-40.000	24.920	-14.250	2.000
							6.000
							10.000
							SCALE

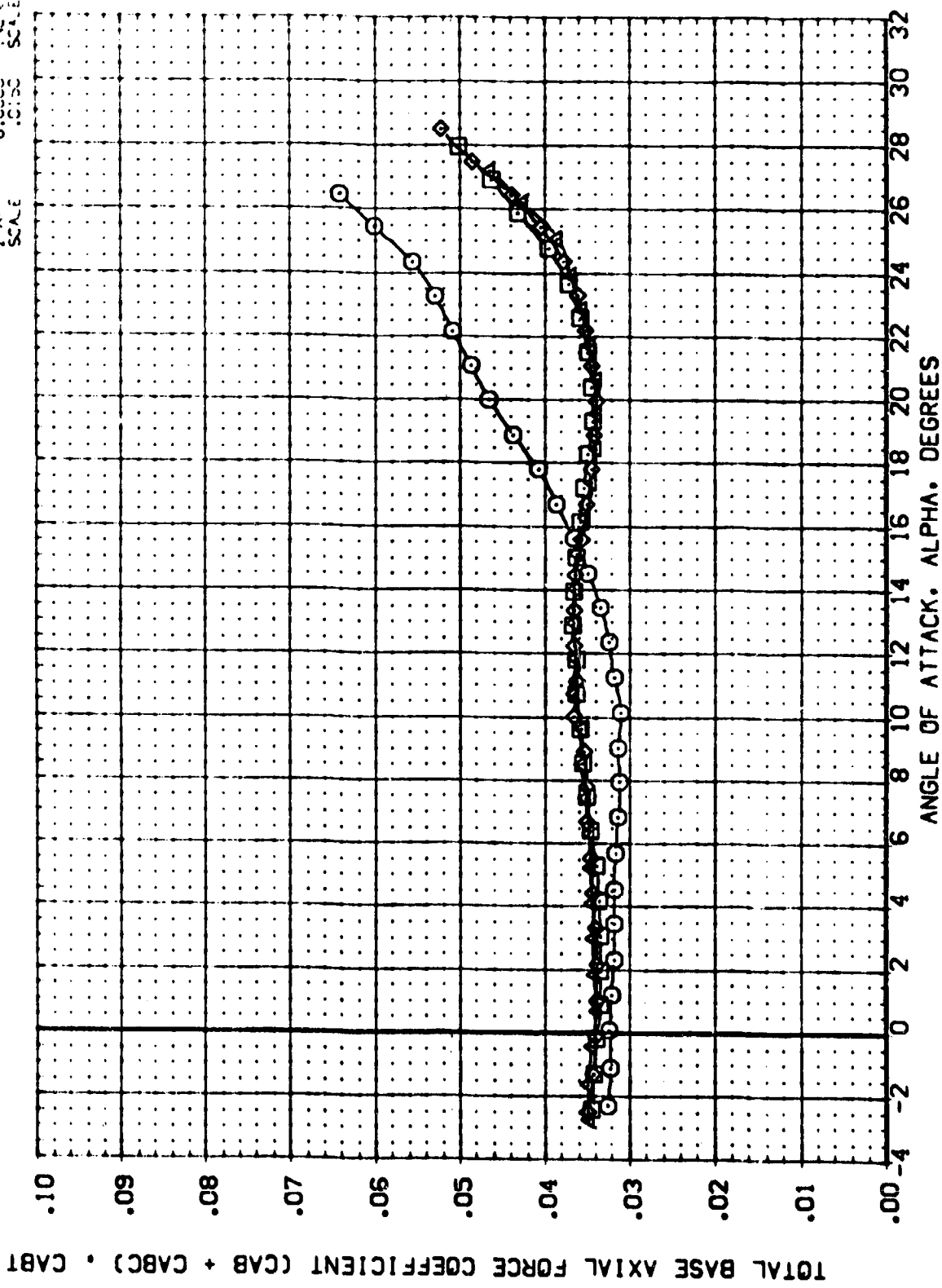


(B)MACH = .91

PAGE

6

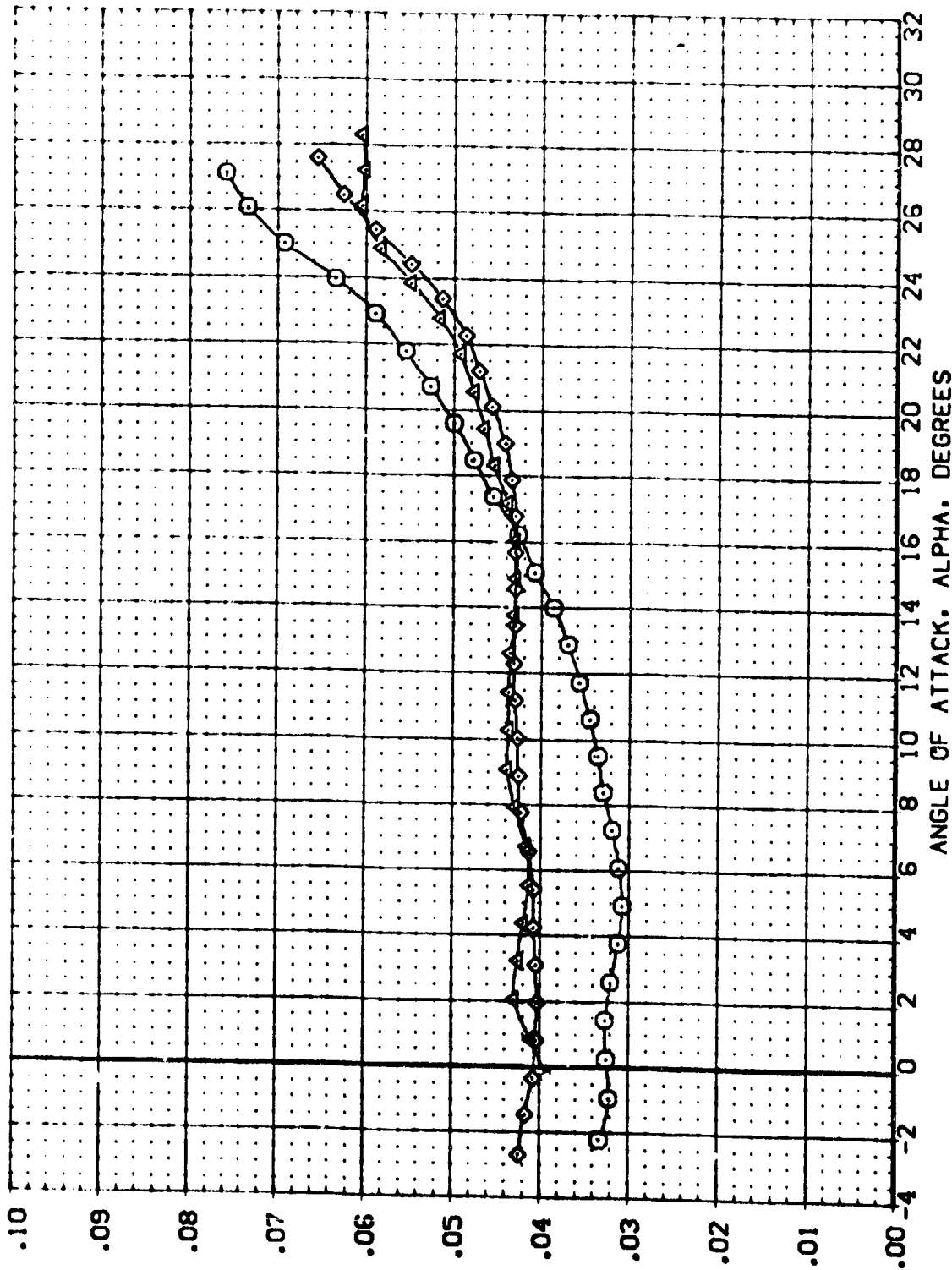
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RAVL	ELEVON	RZ OF R	BLAD	REFERENCE INFORMATION
000001	CA68 B22 07 M4 FS V111 E23 V7 R5	7.000	.000	24.920	-4.250	6053
000002	CA68 B22 07 M4 FS V111 E23 V7 R5	5.100	-40.000	24.920	-4.250	7.000
000003	CA68 B22 07 M4 FS V111 E23 V7 R5	7.000	-40.000	24.920	-4.250	14.000
000004	CA68 B22 07 M4 FS V111 E23 V7 R5	8.100	-40.000	24.920	-4.250	12.000
						6.000
						SCALE



REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = .61

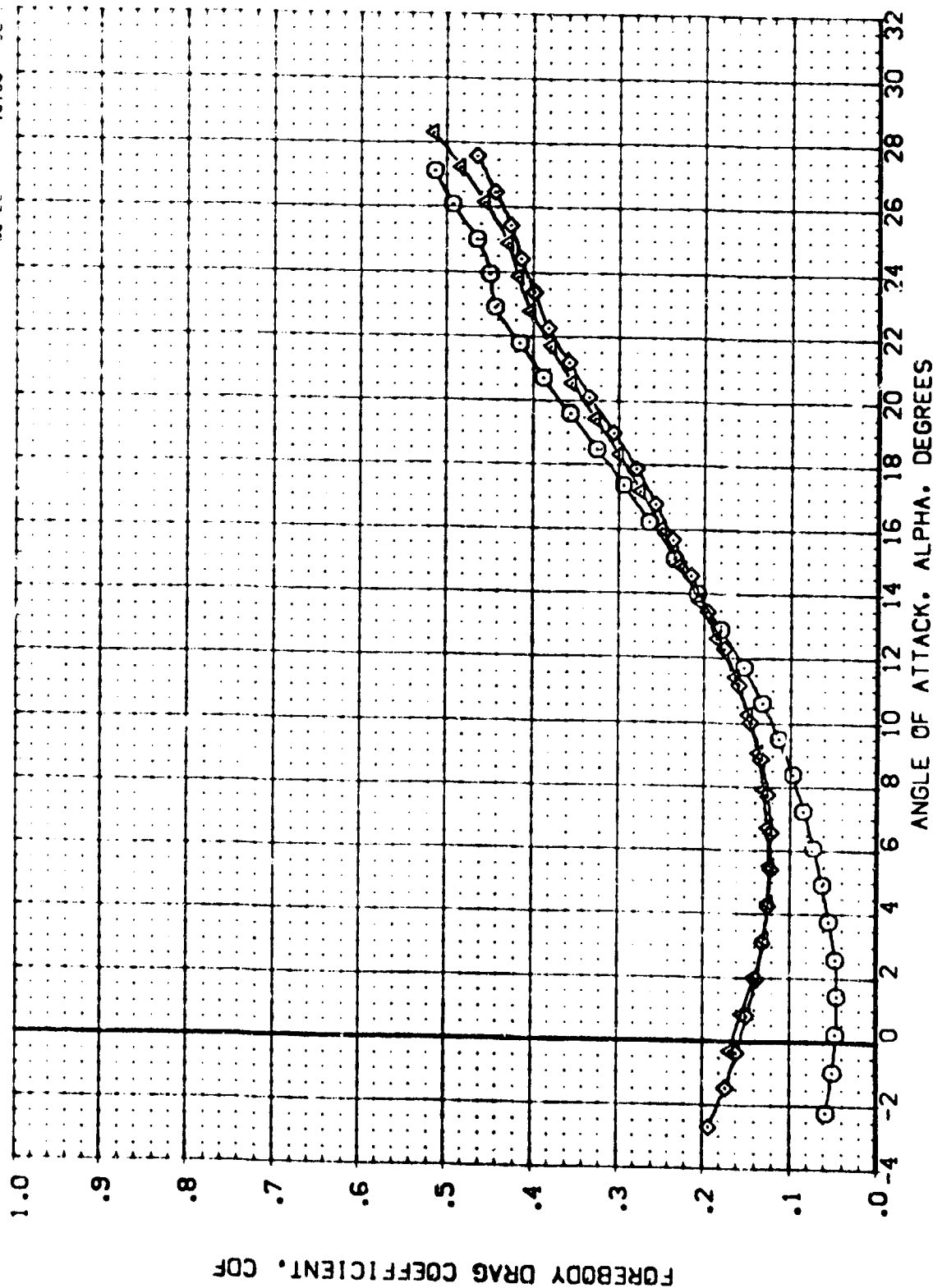
TOTAL BASE AXIAL FORCE COEFFICIENT (CAB + CABO) • CABT



REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

```
(B)MACH = .91
```

PAGE 8

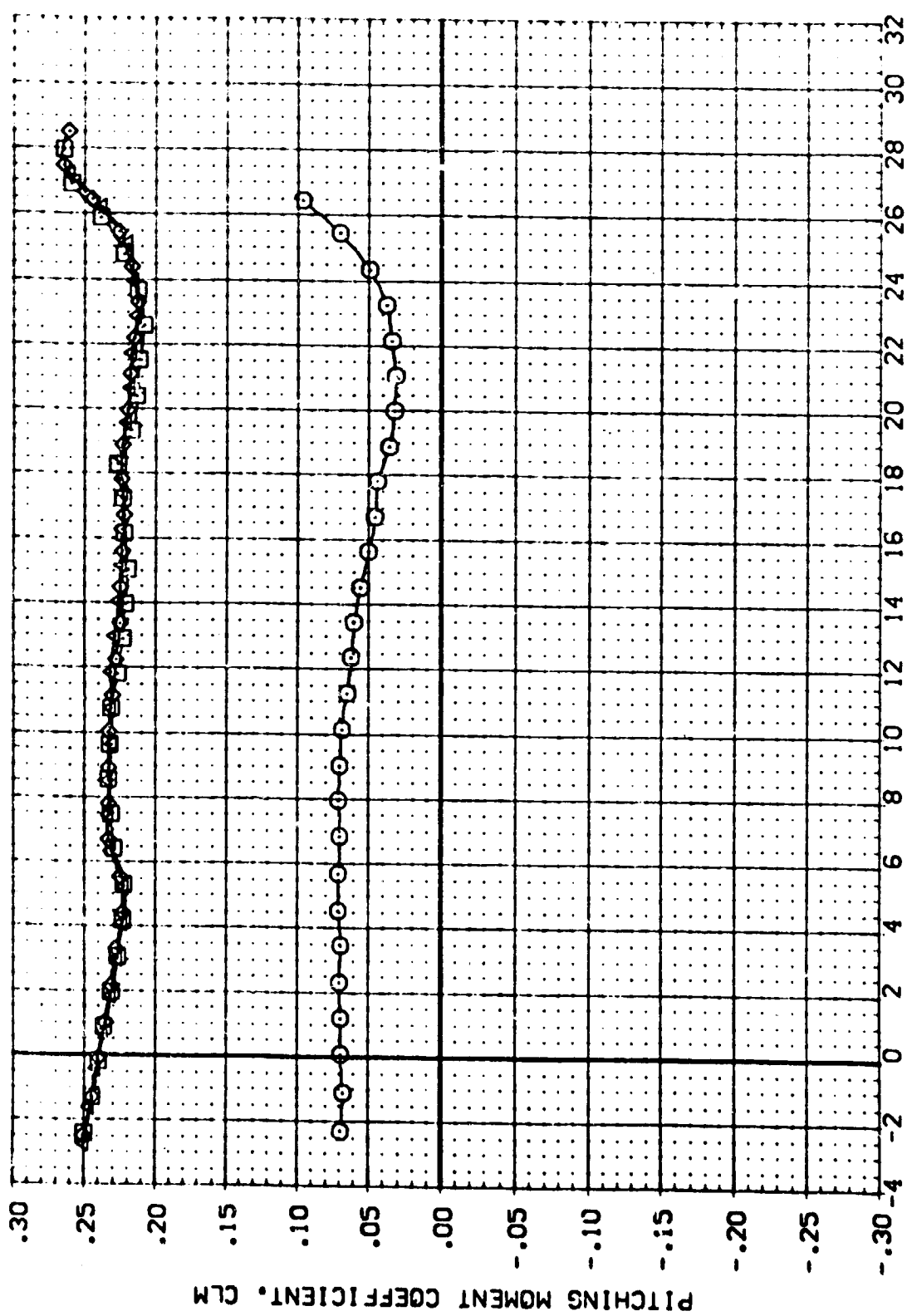
[illegible]

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

CBMACH = .91

PAGE 10

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	REF. ELEVON	FLIGHT R	BE LAP	REFERENCE INFORMATION
000001	1	0488	322 07 34	0.000	24.970	14.250	SMF 6053
000002	2	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000003	3	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000004	4	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000005	5	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000006	6	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000007	7	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000008	8	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000009	9	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000010	10	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000011	11	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000012	12	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000013	13	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000014	14	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000015	15	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000016	16	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000017	17	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000018	18	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000019	19	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000020	20	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000021	21	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000022	22	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000023	23	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000024	24	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000025	25	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000026	26	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000027	27	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000028	28	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000029	29	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000030	30	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000031	31	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000032	32	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000033	33	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000034	34	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000035	35	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000036	36	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000037	37	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000038	38	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000039	39	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000040	40	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000041	41	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000042	42	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000043	43	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000044	44	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000045	45	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000046	46	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000047	47	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000048	48	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000049	49	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000050	50	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000051	51	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000052	52	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000053	53	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000054	54	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000055	55	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000056	56	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000057	57	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000058	58	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000059	59	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000060	60	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000061	61	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000062	62	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000063	63	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000064	64	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000065	65	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000066	66	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000067	67	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000068	68	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000069	69	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000070	70	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000071	71	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000072	72	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000073	73	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000074	74	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000075	75	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000076	76	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000077	77	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000078	78	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000079	79	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000080	80	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000081	81	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000082	82	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000083	83	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000084	84	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000085	85	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000086	86	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000087	87	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000088	88	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000089	89	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000090	90	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000091	91	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000092	92	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000093	93	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000094	94	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000095	95	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000096	96	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000097	97	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000098	98	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000099	99	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232
000100	100	0488	322 07 34	0.000	24.970	14.250	LOF 7.1232



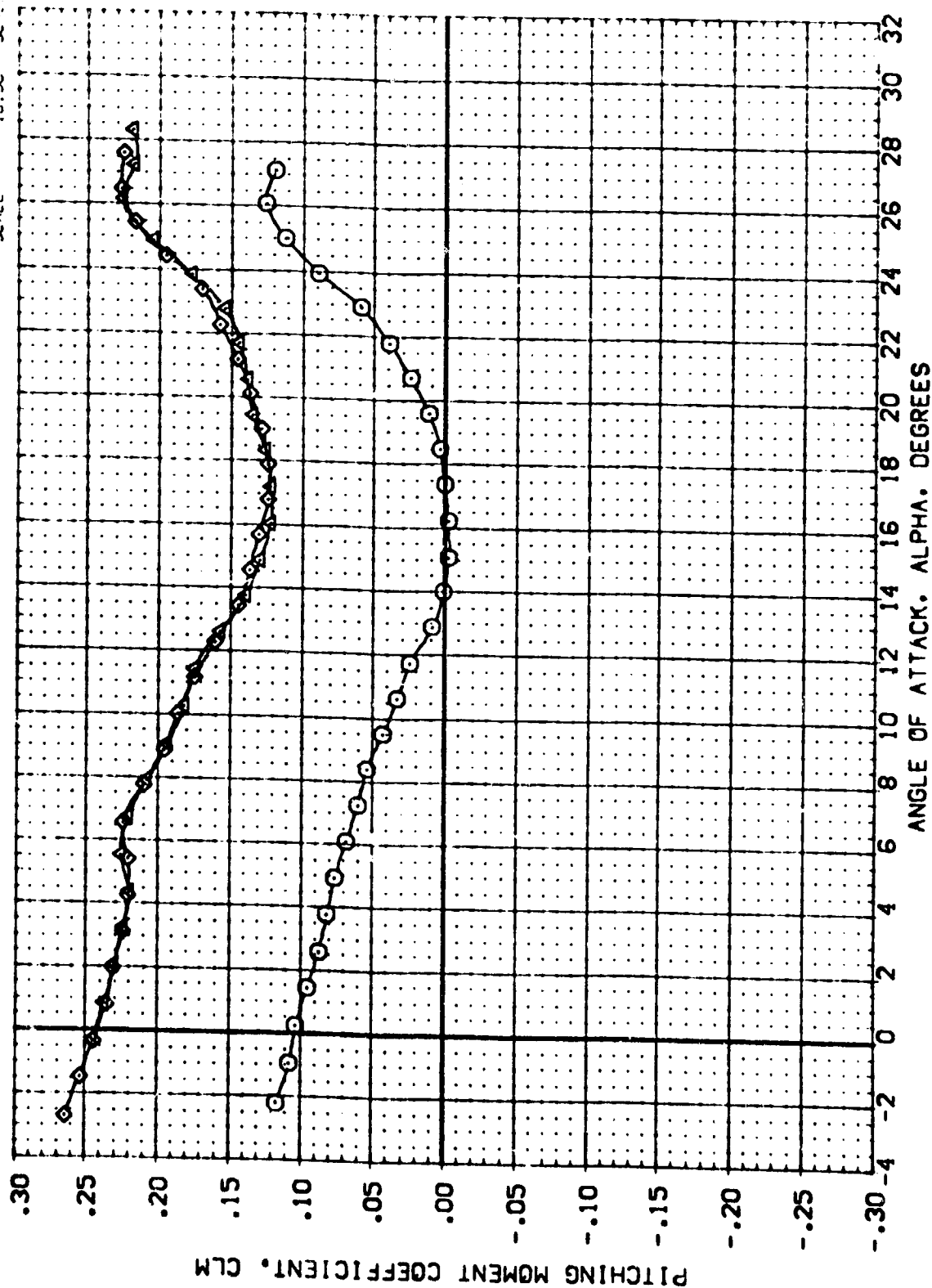
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = .61

PAGE

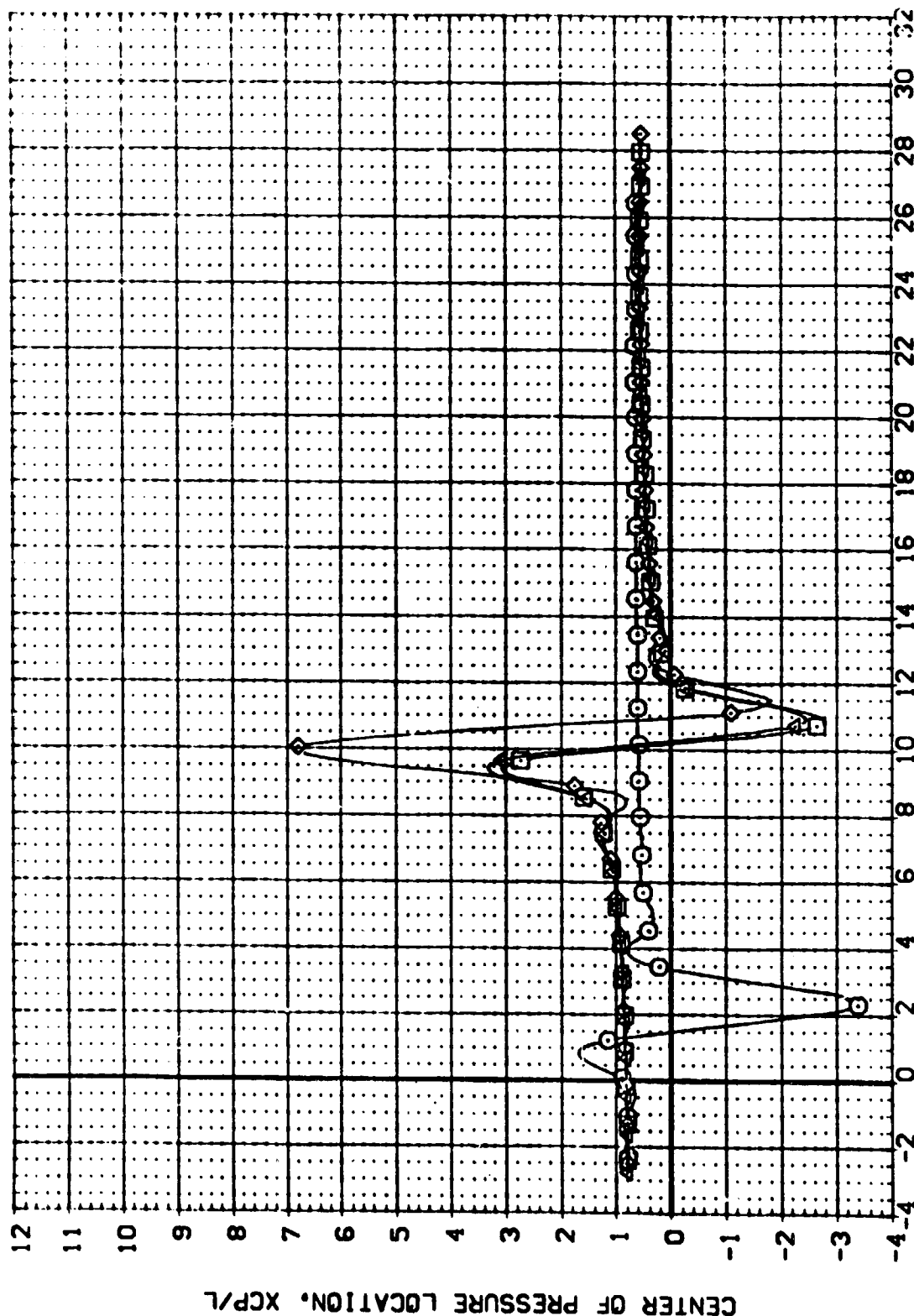
11

[illegible]

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(B)NACH = 9;

REV.	ELEV	ROD L	BLAP	REFERENCE	ADJUST
7.00000	00000	24.920	-4.260	SAFE	1823
7.00000	00000	24.920	-4.260	SAFE	7223
5.00000	40000	24.920	-4.260	BACK	1208
5.00000	40000	24.920	-4.260	BACK	1208
8.00000	00000	24.920	-4.260	ADJ	6000
				SCALE	0000



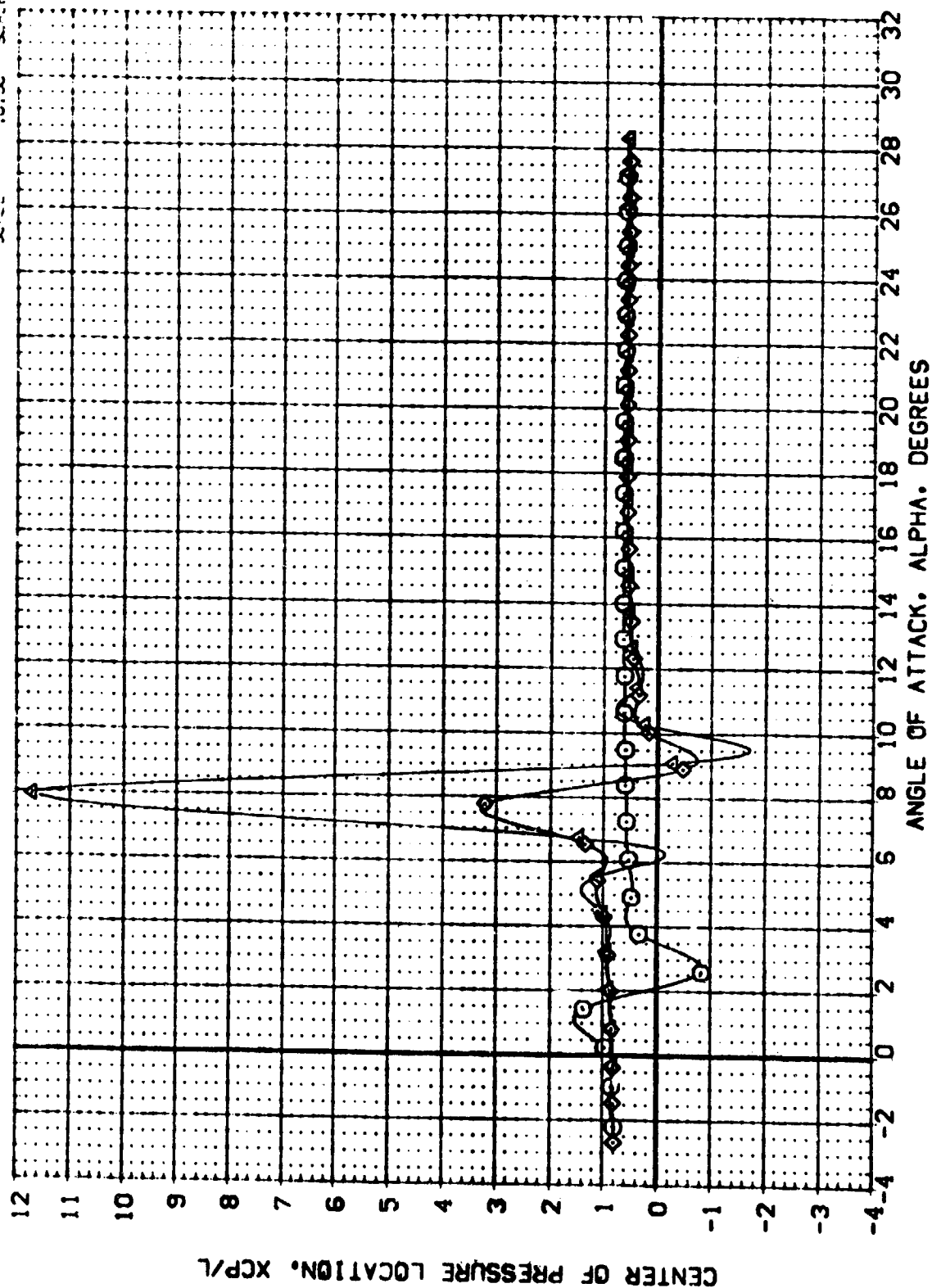
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

$$C_A)MACH = .01$$

PAGE : 3

REFL	ELEV	RJF-R	BLAD	REFERENCE	INFORM
7.00000	00000	24.99999	4.00000	000000000	000000000
5.00000	00000	24.99999	4.00000	000000000	000000000
6.00000	00000	24.99999	4.00000	000000000	000000000

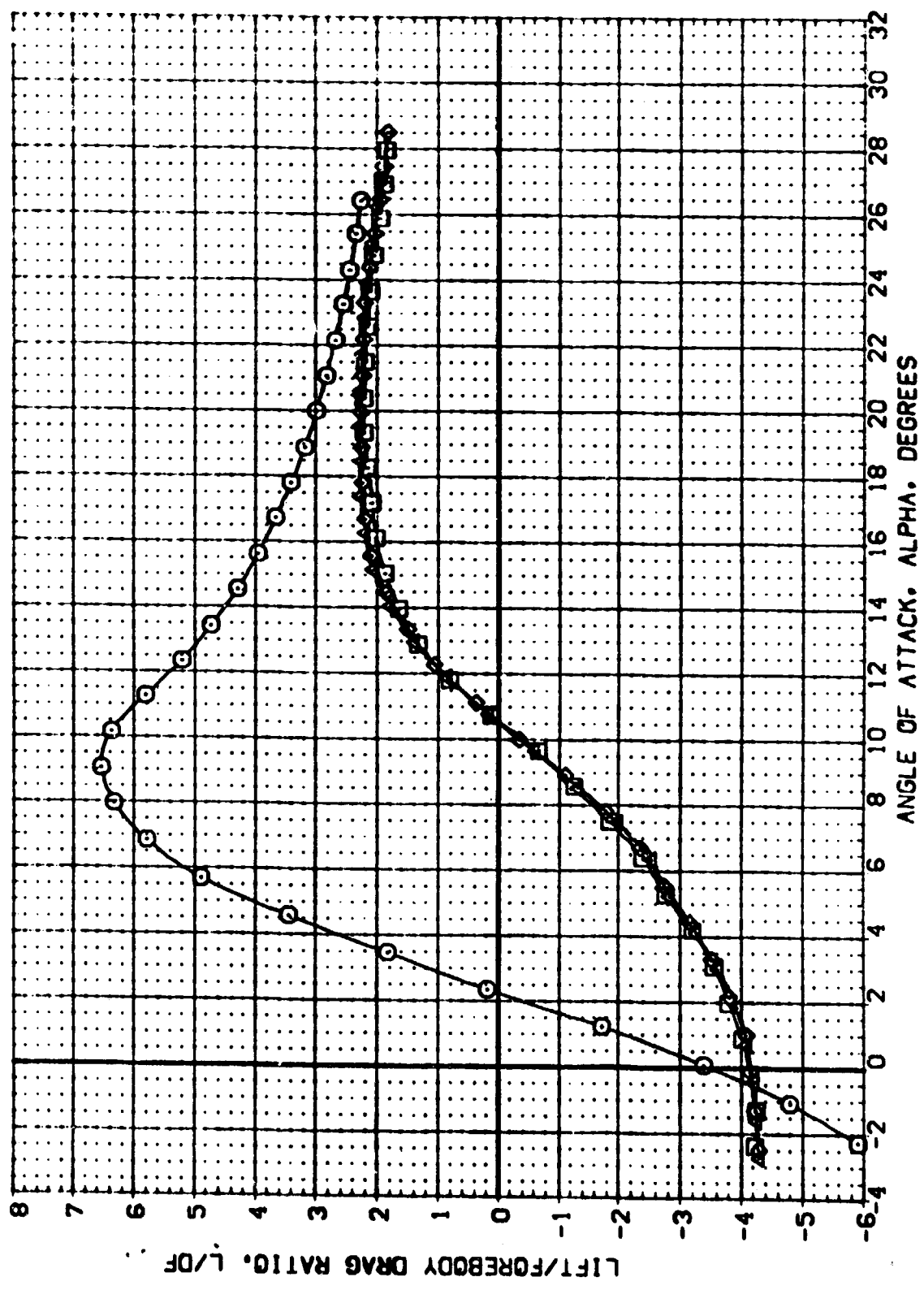


REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

[8]MACH = .91

PAGE : 4

DATA SET SYNO	CONV: DATA DESCRIPTION	RV	ELEVON	PLDGR	BLAP	REFERENCE INFORMATION
000001	0488 B22 C7 M4 FS V111 E23 V7 R6	7.000	000	24.820	-14.250	SG
000002	0488 B22 C7 M4 FS V111 E23 V7 R6	5.100	-40.000	24.820	-14.250	SG
000003	0488 B22 C7 M4 FS V111 E23 V7 R6	7.000	-40.000	24.820	-14.250	SG
000004	0488 B22 C7 M4 FS V111 E23 V7 R6	6.100	-40.000	24.820	-14.250	SG
						SCALE
						6.0150



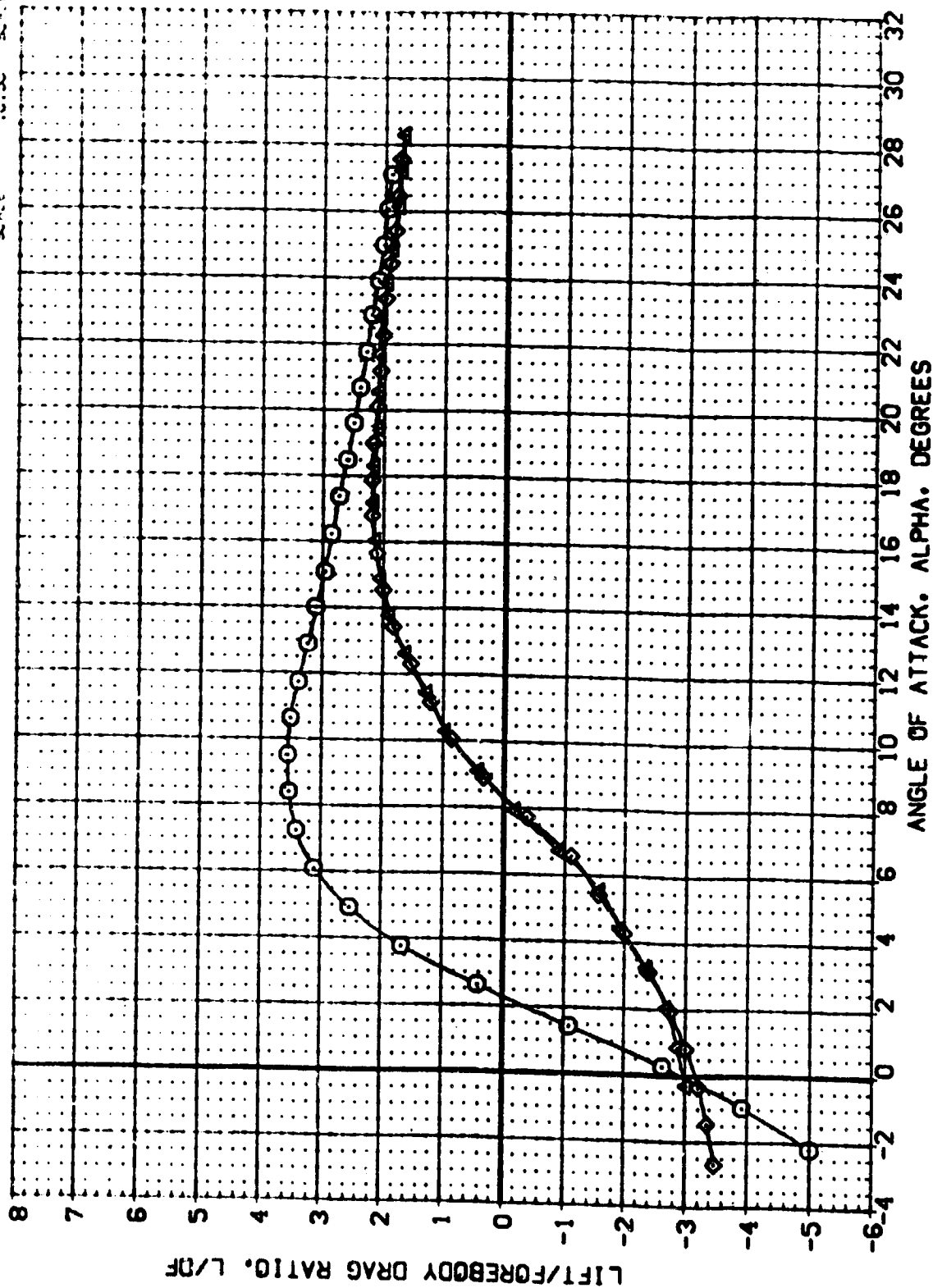
REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(AJMACP = .61

DATE	BY	SYMBOL	CONTRACT NO.	DESCRIPTION
10/27/68			3458 B22	CT 34 5 5 111 223 17 25
10/27/68			3458 B22	CT 34 5 5 111 223 17 25
10/27/68			3458 B22	CT 34 5 5 111 223 17 25
10/27/68			3458 B22	CT 34 5 5 111 223 17 25

REV.	ELEV	POLLR	BLAP
7.333	33.333	24.920	-4.333
5.333	33.333	24.920	-4.333
7.333	33.333	24.920	-4.333
8.333	33.333	24.920	-4.333

100-443886-100



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	REF. ELEVON	RJOLR	BE LAP	REFERENCE INFORMATION
000001	□	0A88 B22 C7 M4 FS V11 E23 V7 S23	7.000	24.920	-14.200	6053
000002	□	0A88 B22 C7 M4 FS V11 E23 V7 S23	5.100	24.920	-14.200	7.000
000003	□	0A88 B22 C7 M4 FS V11 E23 V7 S23	7.000	24.920	-14.200	14.000
000004	□	0A88 B22 C7 M4 FS V11 E23 V7 S23	8.100	24.920	-14.200	2.000
						6.000
						SCALE



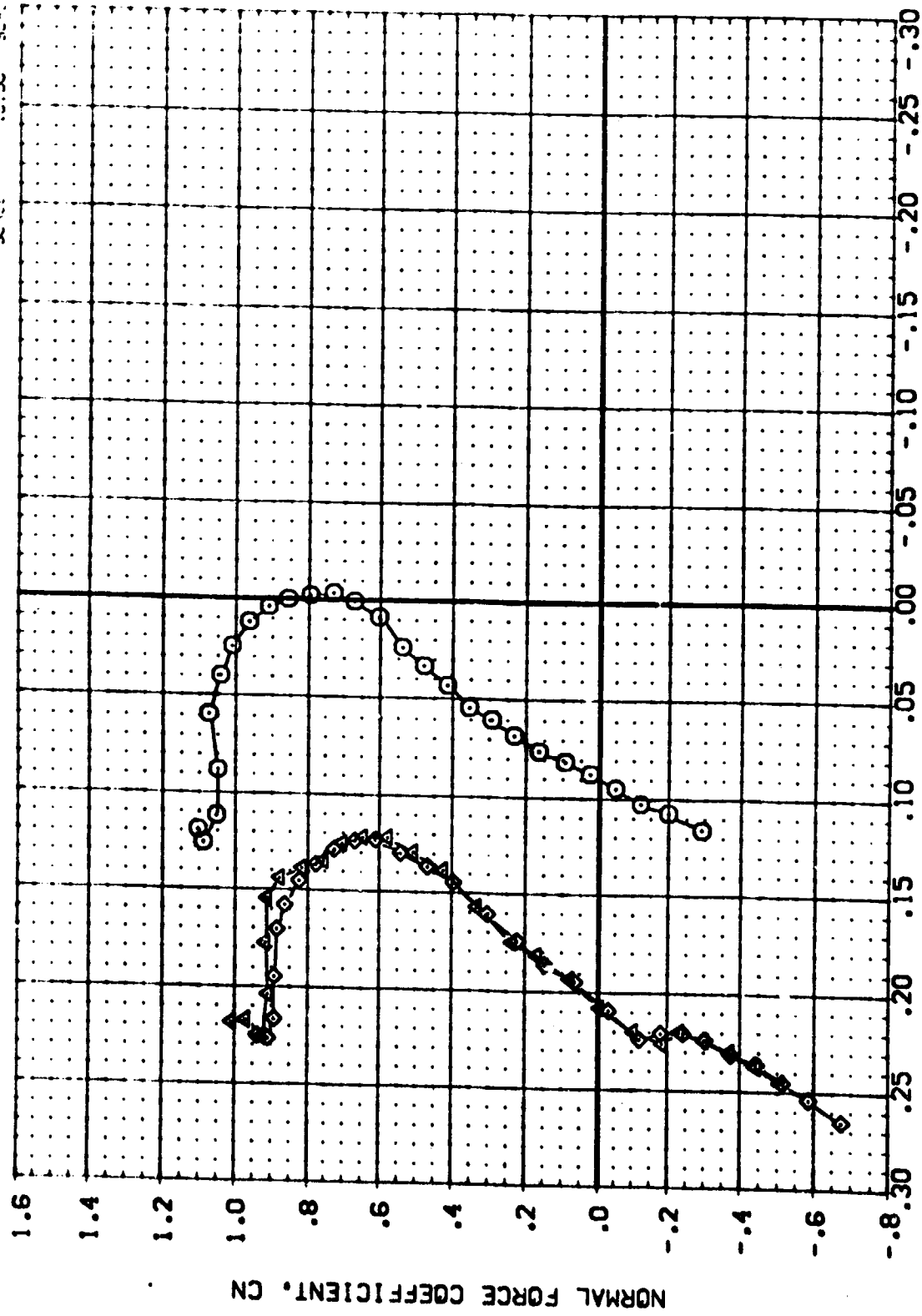
PITCHING MOMENT COEFFICIENT, CLM

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = .61

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 1-1 2A68 922 27 M4 F5 V111 523 V7 25
 1-2 2A68 922 27 M4 F5 V111 523 V7 25
 1-3 2A68 922 27 M4 F5 V111 523 V7 25
 1-4 2A68 922 27 M4 F5 V111 523 V7 25

RVL ELEVON RDOFLR BELAP REFERENCE INFORMATION
 7.000 .000 24.920 -14.200 SKE 6053 523 V7 25
 5.000 -40.000 24.920 -14.200 BKE 7.000 523 V7 25
 7.000 -40.000 24.920 -14.200 14.000 523 V7 25
 8.000 -40.000 24.920 -14.200 14.000 523 V7 25
 14.000 523 V7 25
 6.000 523 V7 25
 14.000 523 V7 25
 14.000 523 V7 25



PITCHING MOMENT COEFFICIENT, CLM

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

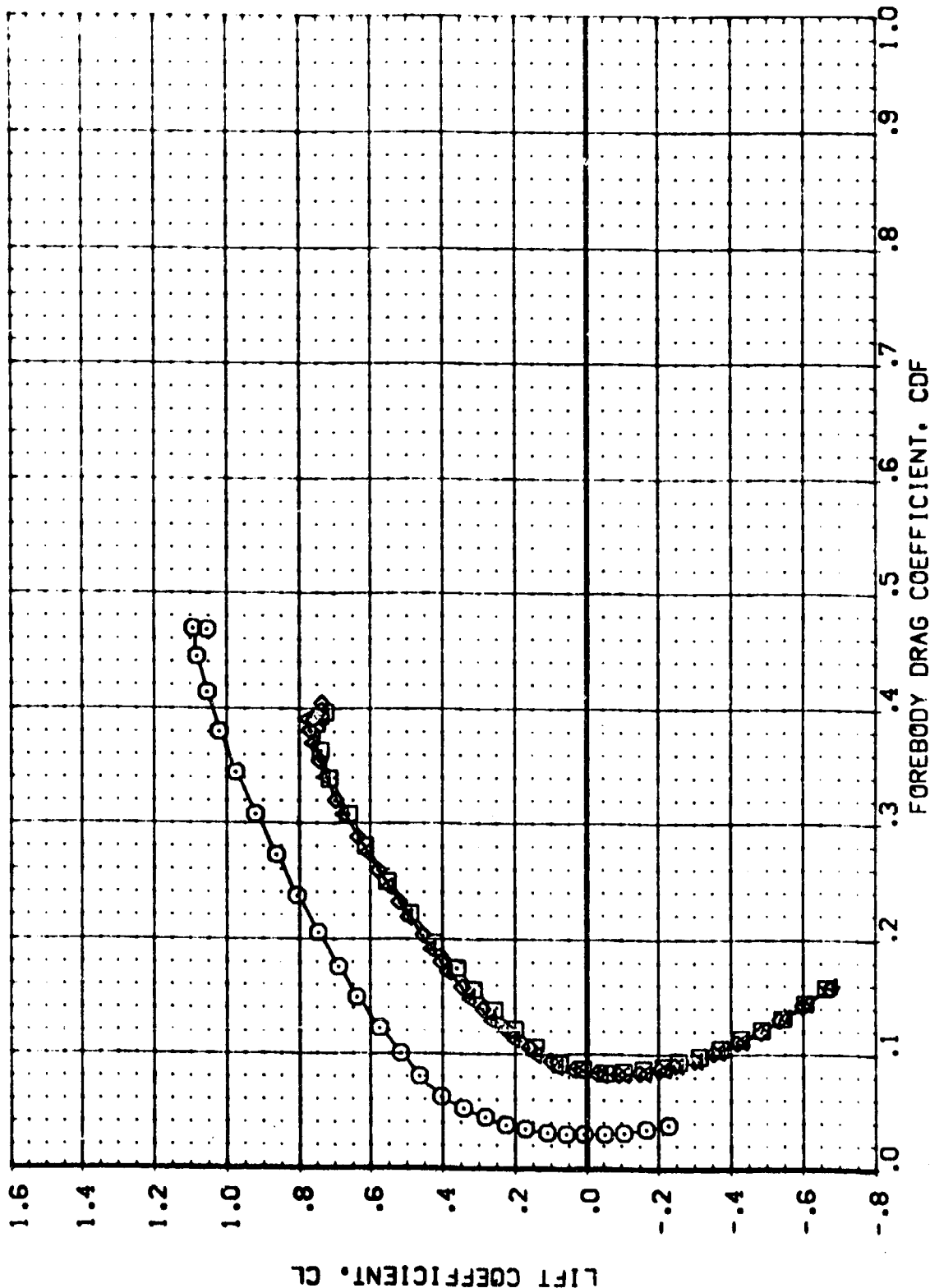
(B)MACH = .91

[illegible]

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES
PITCHING MOMENT COEFFICIENT, CLM

$$C_A)MACH = .01$$

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	REF. IN OPER.	SCALE
000001	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000002	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000003	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000004	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000005	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000006	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000007	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000008	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000009	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000010	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000011	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000012	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000013	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000014	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000015	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000016	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000017	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000018	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000019	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000020	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000021	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000022	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000023	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000024	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000025	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000026	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000027	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000028	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000029	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000030	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000031	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000032	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000033	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000034	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000035	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000036	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000037	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000038	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000039	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000040	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000041	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000042	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000043	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000044	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000045	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000046	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000047	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000048	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000049	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000050	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000051	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000052	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000053	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000054	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000055	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000056	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000057	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000058	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000059	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000060	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000061	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000062	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000063	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000064	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000065	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000066	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000067	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000068	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000069	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000070	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000071	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000072	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000073	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000074	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000075	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000076	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000077	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000078	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000079	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000080	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000081	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000082	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000083	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000084	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000085	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000086	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000087	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000088	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000089	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000090	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000091	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000092	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000093	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000094	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000095	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000096	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000097	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000098	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000099	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000
000100	C	048 B77	07 M4 F5 V111 E23 V7 R5	0000	1.0000



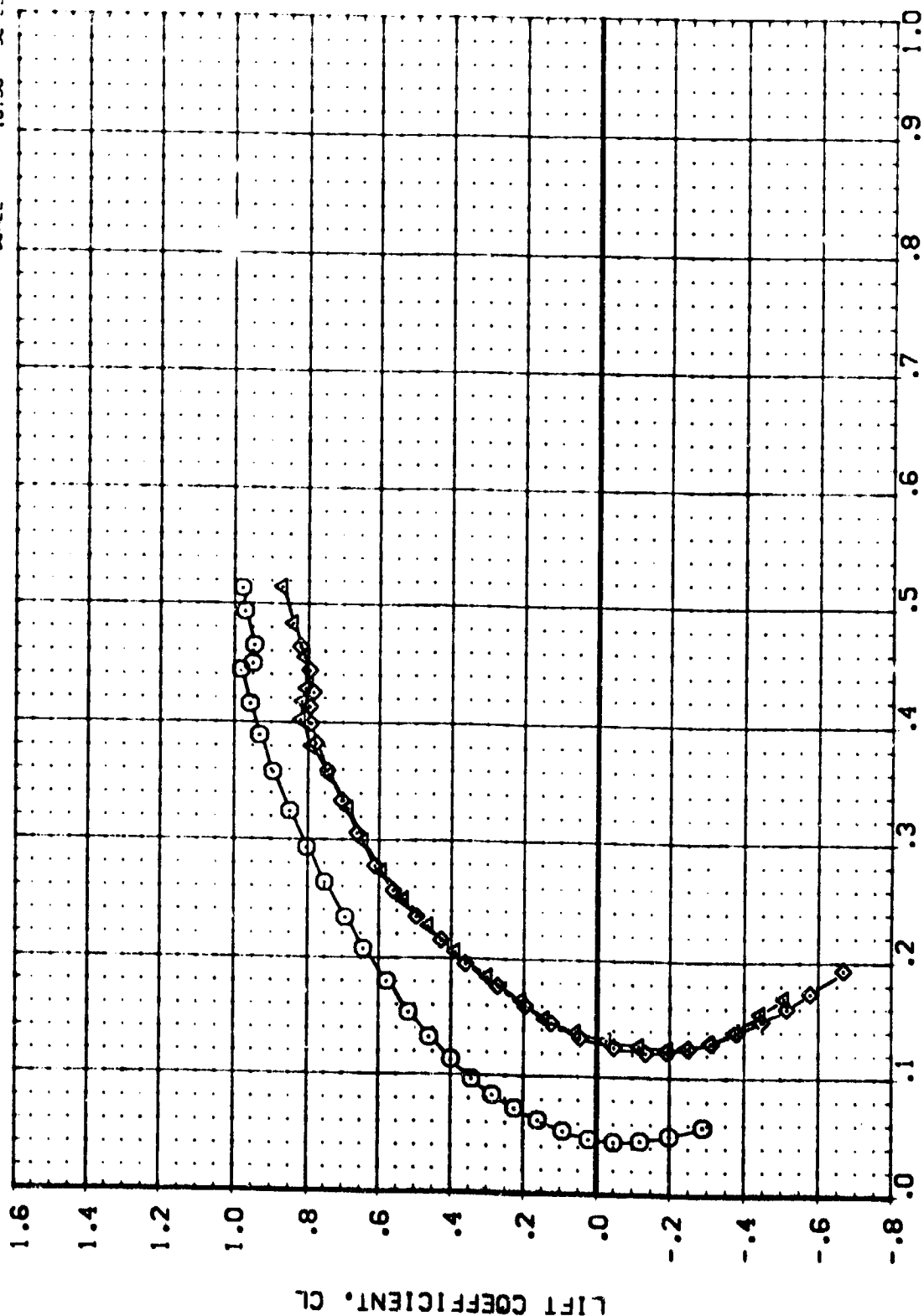
REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

CAD MACH = .61

PAGE

2:

REFL	LEVEL	RJCL	EX AP	REFR	SCALE
7.00000	000000	24.99999	4.00000	REF	00000
5.00000	000000	24.99999	4.00000	REF	00000
3.00000	000000	24.99999	4.00000	REF	00000
1.00000	000000	24.99999	4.00000	REF	00000
0.00000	000000	24.99999	4.00000	REF	00000



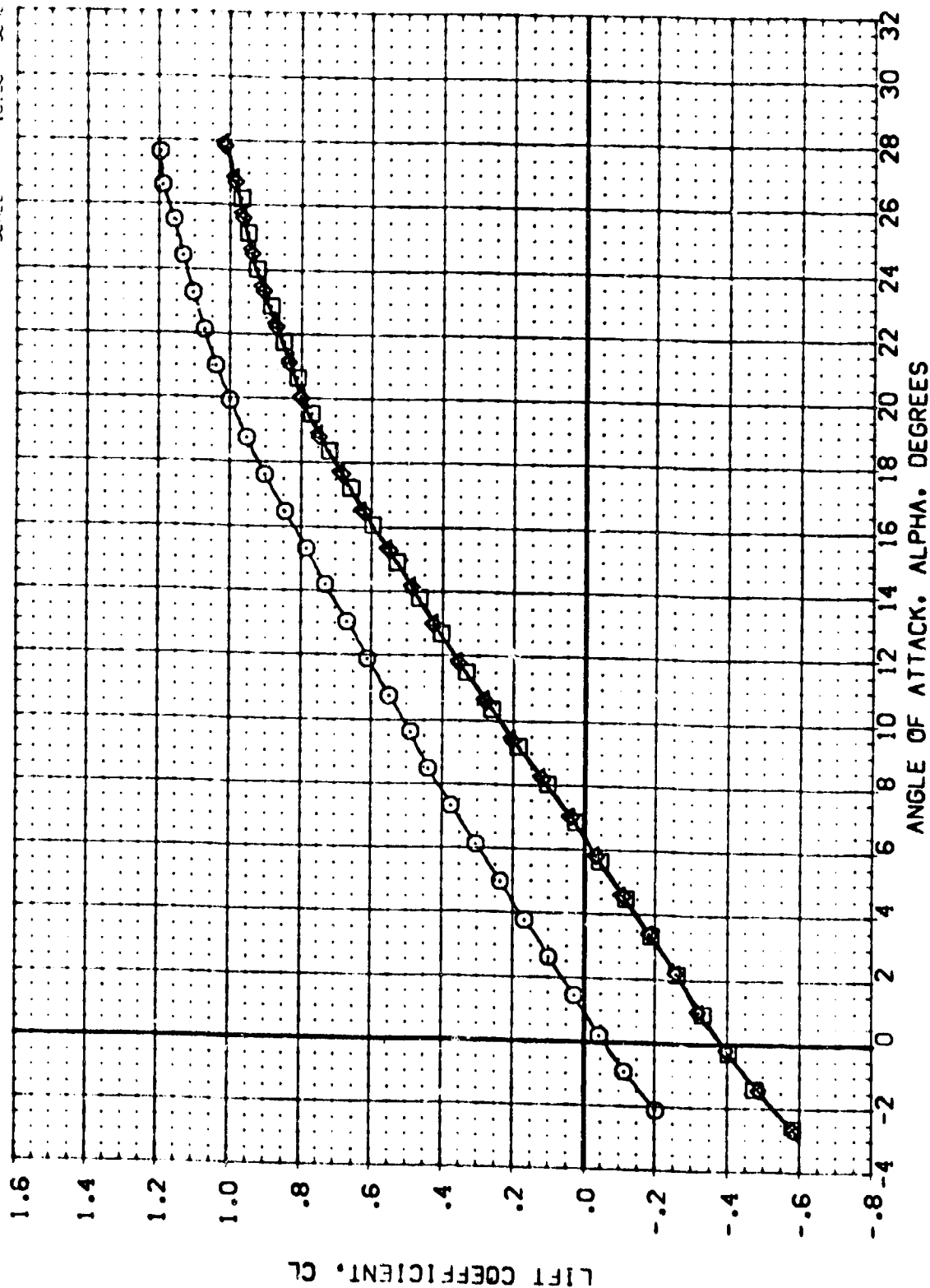
FOREBODY DRAG COEFFICIENT, CDF

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

```
(B)MACH = .9!
```


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 000001 0168 822 07 04 FS V111 023 V7 85
 000002 0168 822 07 04 FS V111 023 V7 85
 000003 0168 822 07 04 FS V111 023 V7 85
 000004 0168 822 07 04 FS V111 023 V7 85

REF. ELEVON ROLLR BE AP REFERENCE IN DIMENSION
 7.000 0.000 54.900 0.000 6000
 8.000 40.000 54.900 0.000 1000
 9.000 40.000 54.900 0.000 1000
 SCALE 7000 6.0000



REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

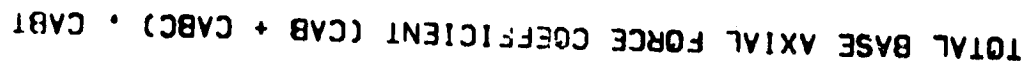
(A)MACH = 1.21

CA68	322	07	M4	5	Y	1	623	5	8
CA68	322	07	M4	5	Y	1	623	5	8
CA68	322	07	M4	5	Y	1	623	5	8
CA68	322	07	M4	5	Y	1	623	5	8

[illegible]

DATE: 06-08-2009
TIME: 10:00 AM

Page 1 of 1



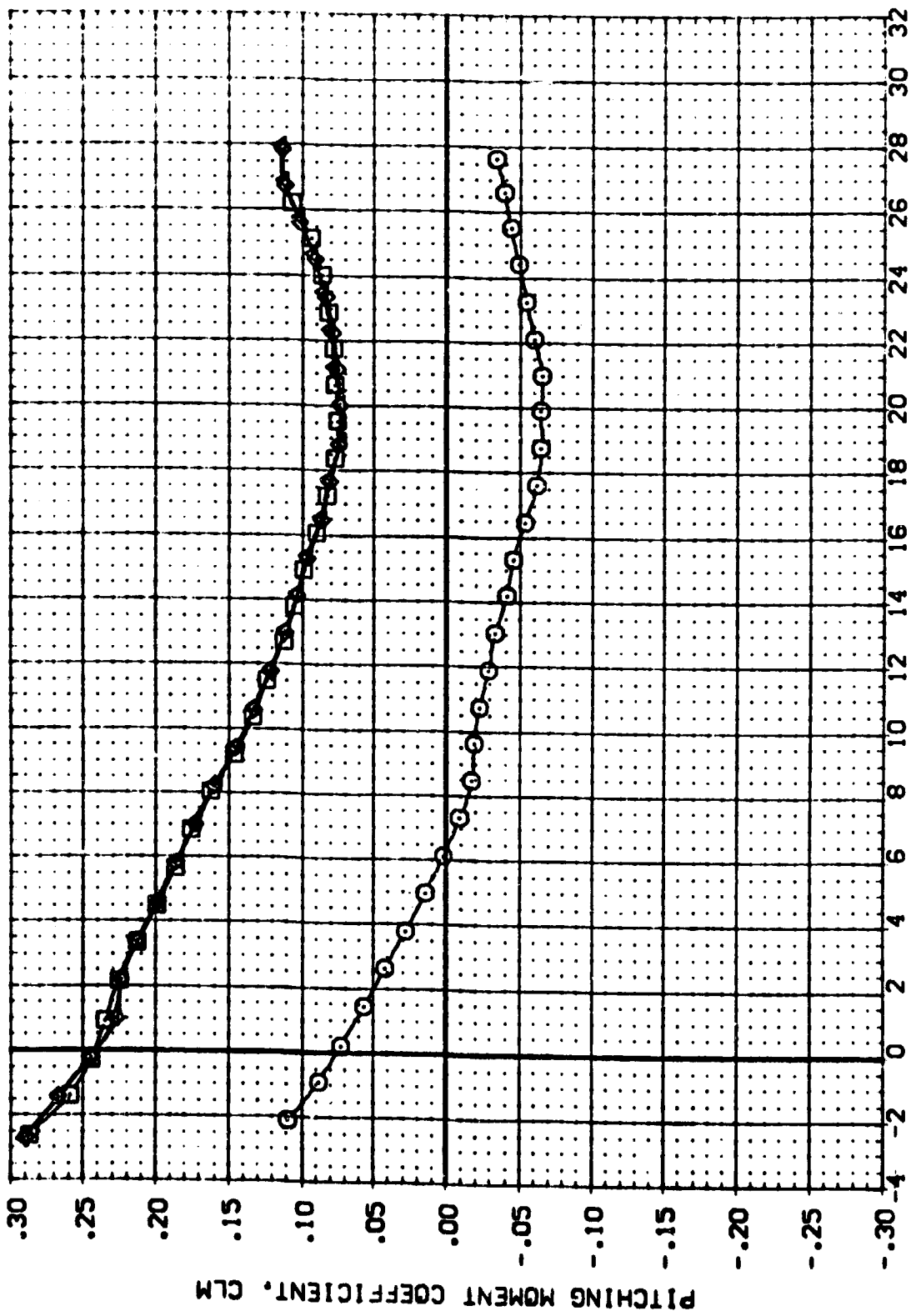
[Λ]MACH = 1.2;

DATA SET SYMBOL CONFIGURATION DESCRIPTION

0488 B22	07 M4 FS	V111	E23 V7 R5
0488 B22	07 M4 FS	V111	E23 V7 R5
0488 B22	07 M4 FS	V111	E23 V7 R5
0488 B22	07 M4 FS	V111	E23 V7 R5

REF. ELEVON RUD. FLAP REF. V. NORM. 15

7.000	54.920	4.200	6.000
7.000	54.920	4.200	6.000
8.000	54.920	4.200	6.000
9.000	54.920	4.200	6.000

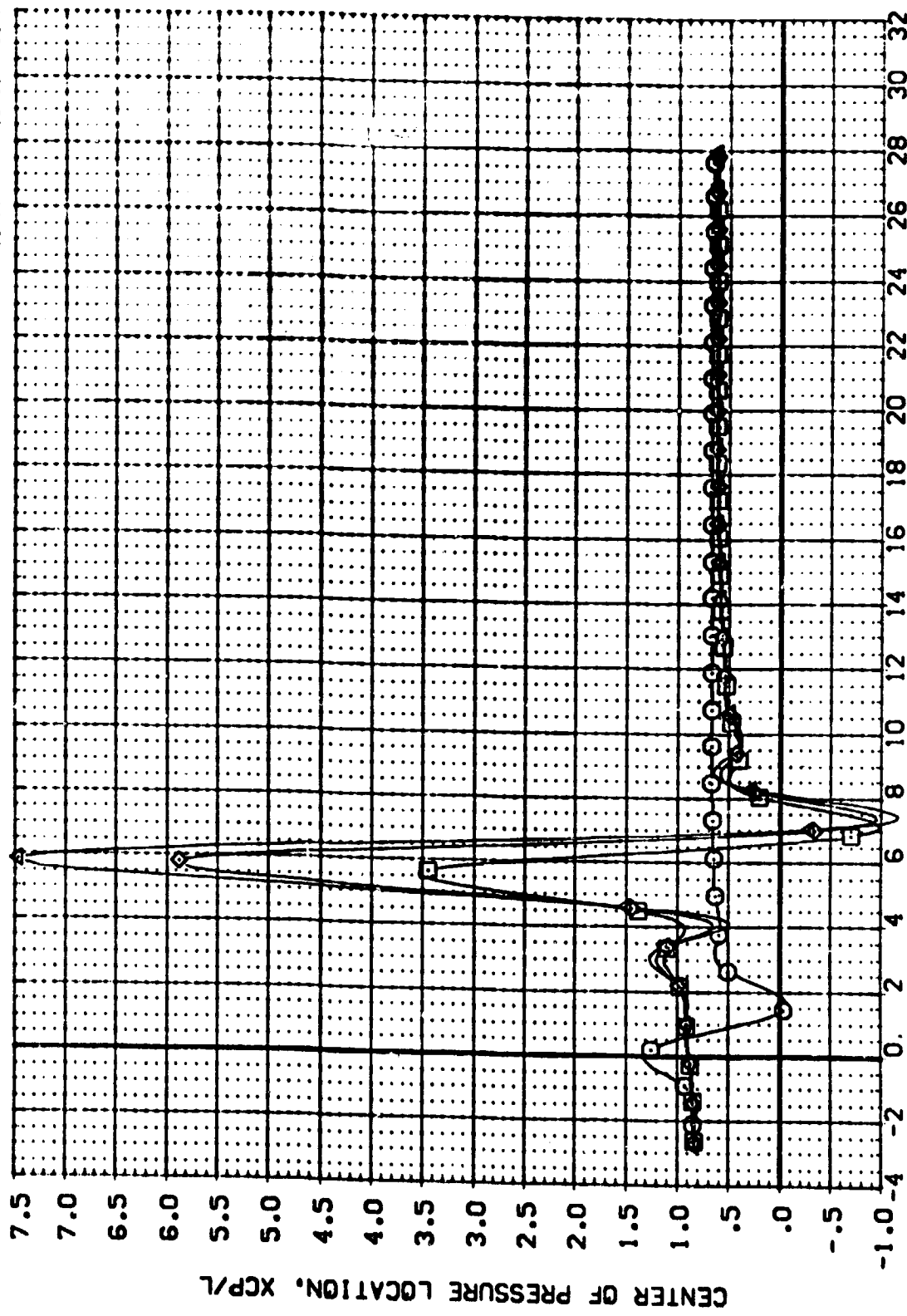


ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = 1.21

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	QVAL	ELEVON	RUFLR	BLAP	REFERENCE INFORMATION
000000	1	0A58 B22 C7 M4 F5 V111 E23 V7 R5	7.000	0.000	54.920	14.200	8000
000000	2	0A58 B22 C7 M4 F5 V111 E23 V7 R5	7.000	0.000	54.920	14.200	8000
000000	3	0A58 B22 C7 M4 F5 V111 E23 V7 R5	8.000	0.000	54.920	14.200	8000
000000	4	0A58 B22 C7 M4 F5 V111 E23 V7 R5	9.000	0.000	54.920	14.200	8000



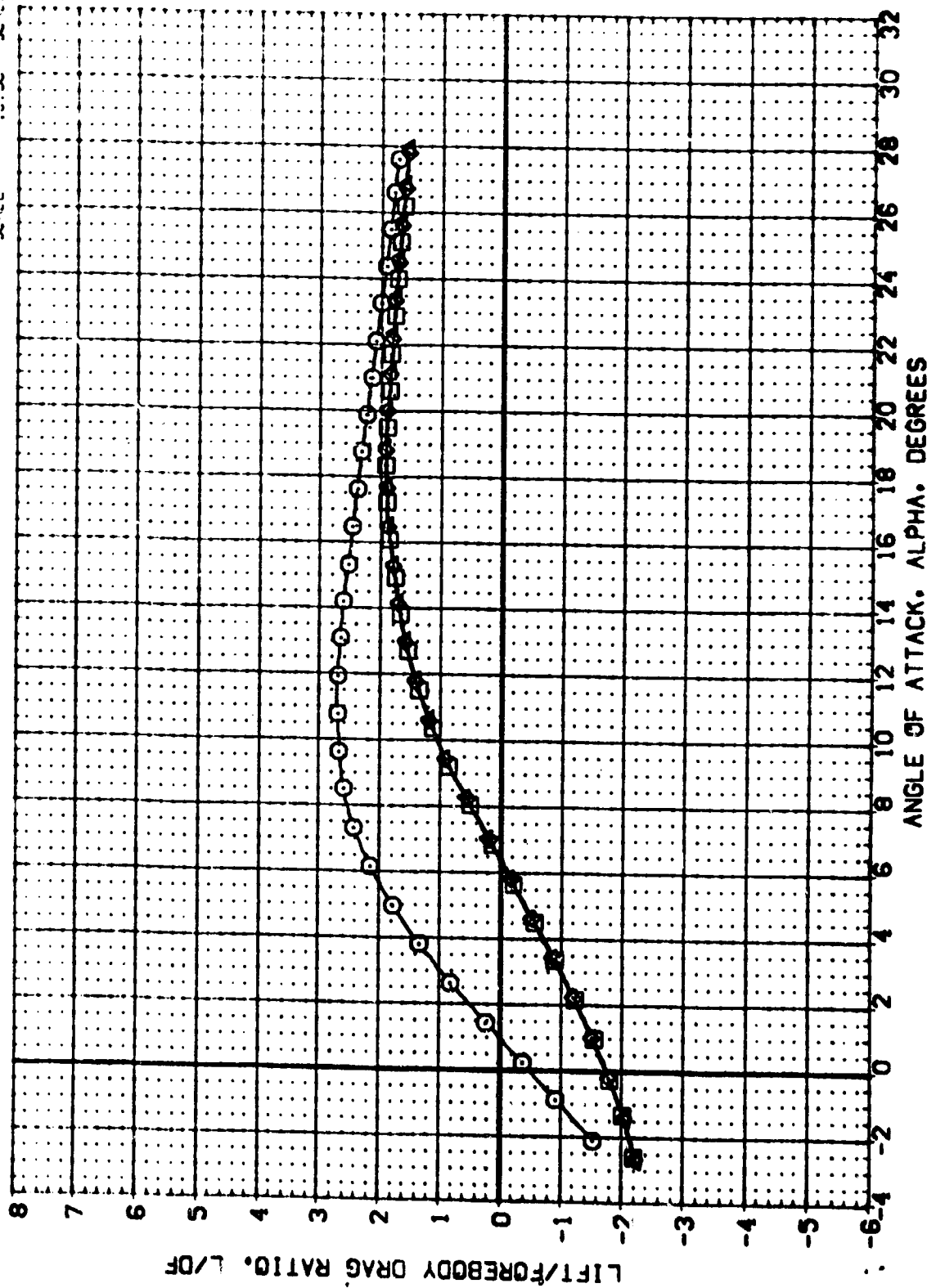
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = 1.21

DATA SET SYMBOL: 1 X
 CONFIGURATION DESCRIPTION:
 2168 822 27 M FS V111 E23 V7 R5
 2168 822 27 M FS V111 E23 V7 R5
 2168 822 27 M FS V111 E23 V7 R5
 2168 822 27 M FS V111 E23 V7 R5

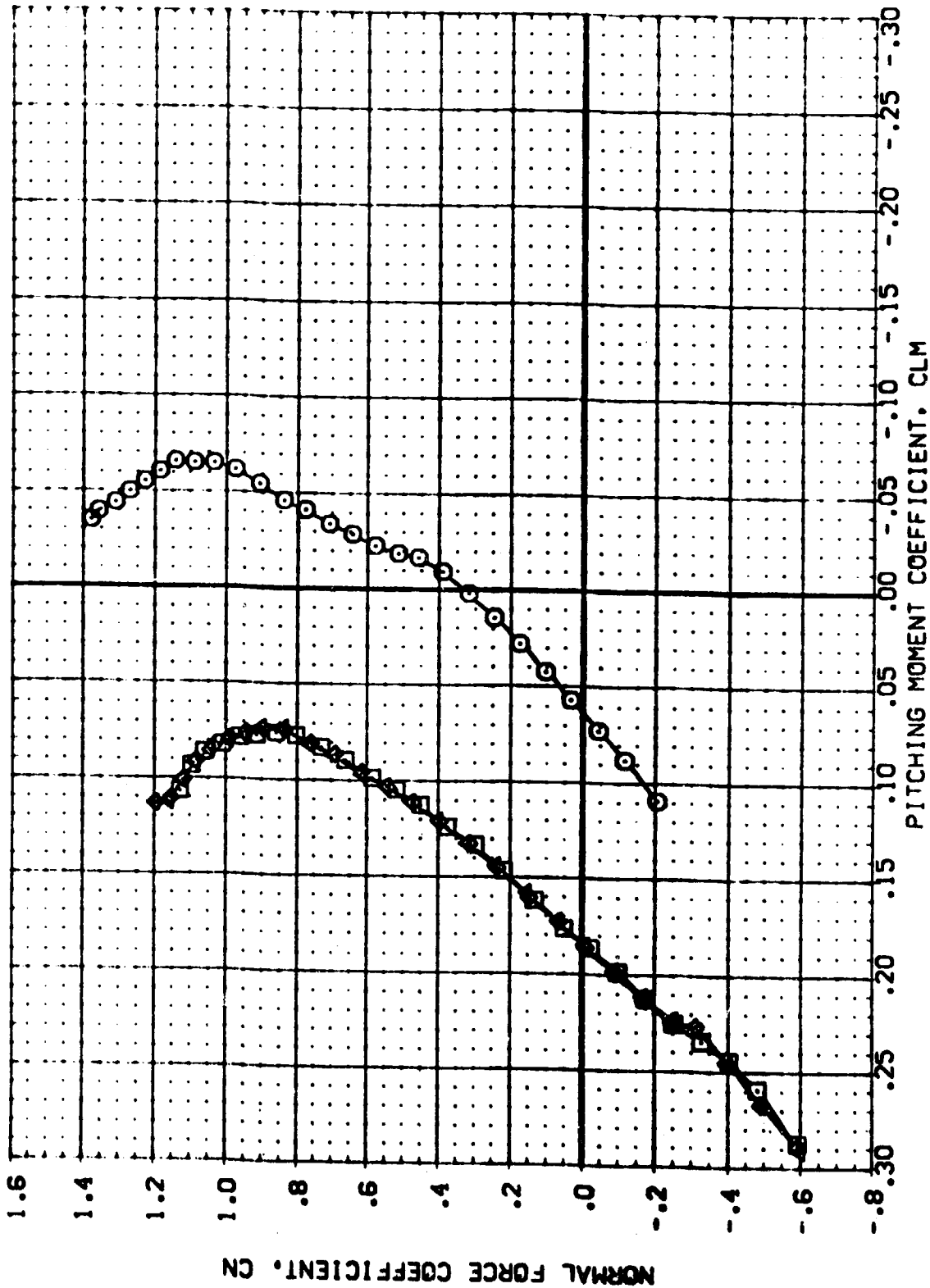
QVL ELEVON R/D/LR B/LAP REFERENCE INFORMATION
 7.000 0.000 54.920 -14.200 6.000
 7.000 0.000 54.920 -14.200 6.000
 8.000 0.000 54.920 -14.200 6.000
 9.000 0.000 54.920 -14.200 6.000
 SCALE 7.000 6.000 6.000 6.000 6.000



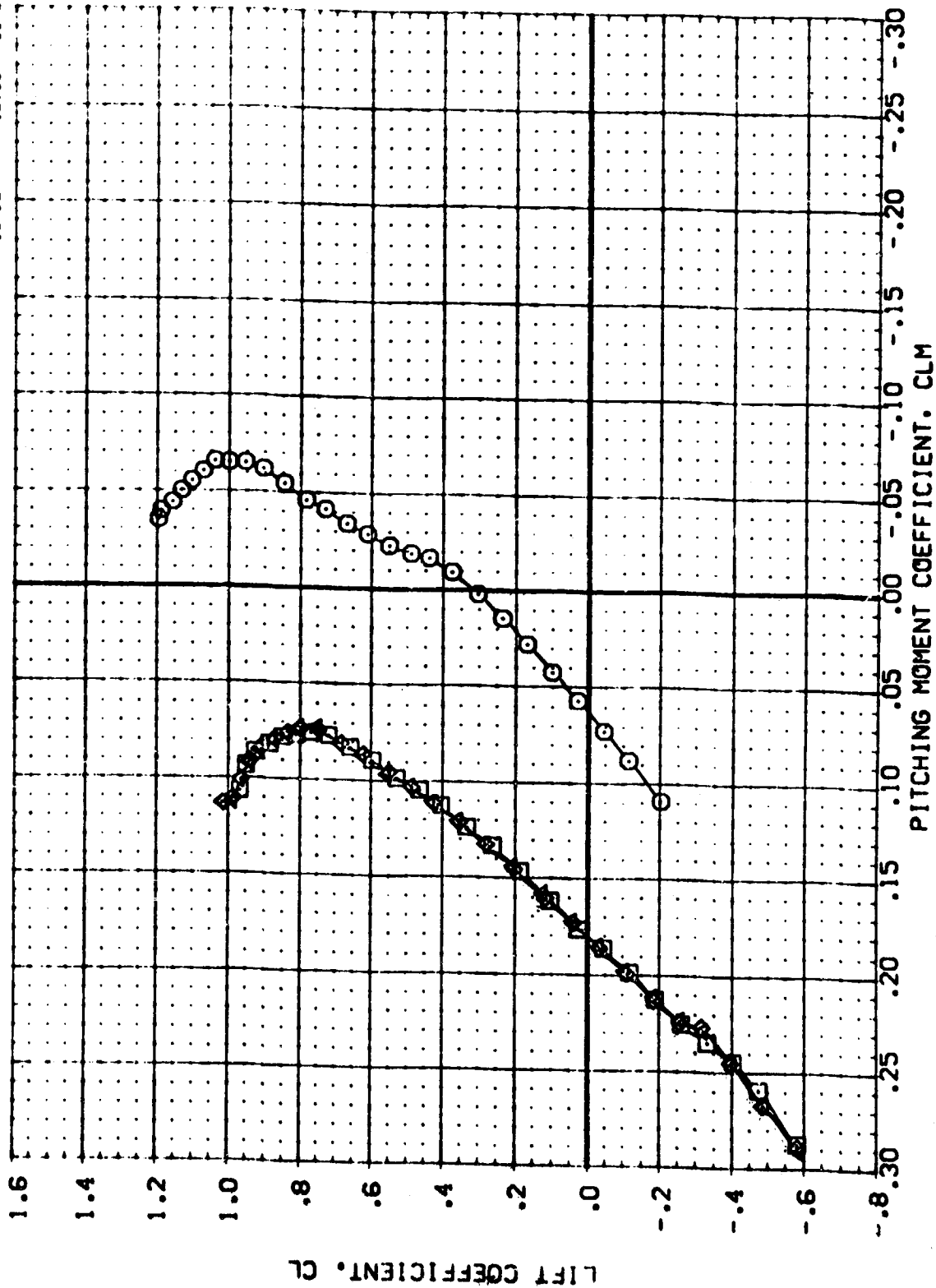
REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(MACH = 1.2)

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RVL	ELEVON	ROOT R	BLAP	REFERENCE	VS
00000	1	0488 B22 C7 M4 FS V111 E23 V7 R6	7.000	0000	54.920	-14.200	SREF	6.000
00001	1	0488 B22 C7 M4 FS V111 E23 V7 R6	7.000	0000	54.920	-14.200	SREF	7.000
00002	1	0488 B22 C7 M4 FS V111 E23 V7 R6	8.000	0000	54.920	-14.200	BREF	4.000
00003	1	0488 B22 C7 M4 FS V111 E23 V7 R6	9.000	0000	54.920	-14.200	XREF	2.000
00004	1	0488 B22 C7 M4 FS V111 E23 V7 R6		0000			YREF	6.000
00005	1	0488 B22 C7 M4 FS V111 E23 V7 R6		0000			ZREF	6.000
00006	1	0488 B22 C7 M4 FS V111 E23 V7 R6		0000			SCALE	6.000



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	REF. ELEVON	REF. BLAP	REFERENCE MOMENTS
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	7.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	7.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	8.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	9.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	10.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	11.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	12.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	13.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	14.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	15.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	16.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	17.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	18.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	19.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	20.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	21.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	22.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	23.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	24.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	25.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	26.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	27.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	28.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	29.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	30.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	31.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	32.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	33.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	34.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	35.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	36.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	37.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	38.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	39.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	40.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	41.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	42.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	43.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	44.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	45.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	46.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	47.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	48.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	49.000	14.000	1000
000000	I	0488 B22 C7 M4 FS V11 E23 V7 FS	50.000	14.000	1000

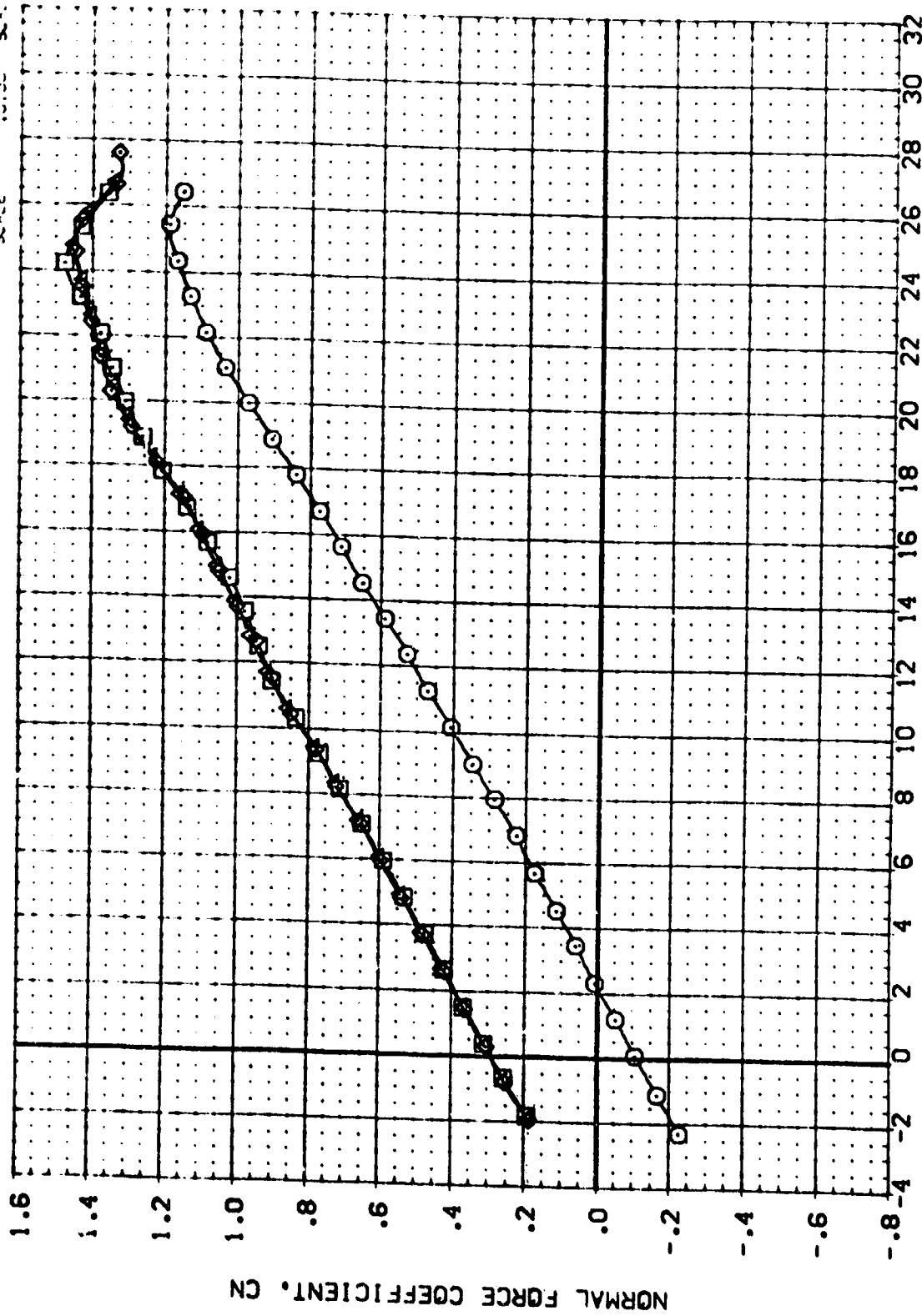


REYNOLDS NUMBER EFFECT - ELEVON = -40 DEGREES

(A)MACH = 1.21

DATA SET SYMBOL: 3A88 322 07 04 FS V1 E23 V7 05
 3A88 322 07 04 FS V1 E23 V7 05
 3A88 322 07 04 FS V1 E23 V7 05
 3A88 322 07 04 FS V1 E23 V7 05

REF. ELEVON 24.800 24.800 24.800 24.800
 REF. R 1.200 1.200 1.200 1.200
 REF. BLAP 1.200 1.200 1.200 1.200
 REF. SCALE 6 6 6 6

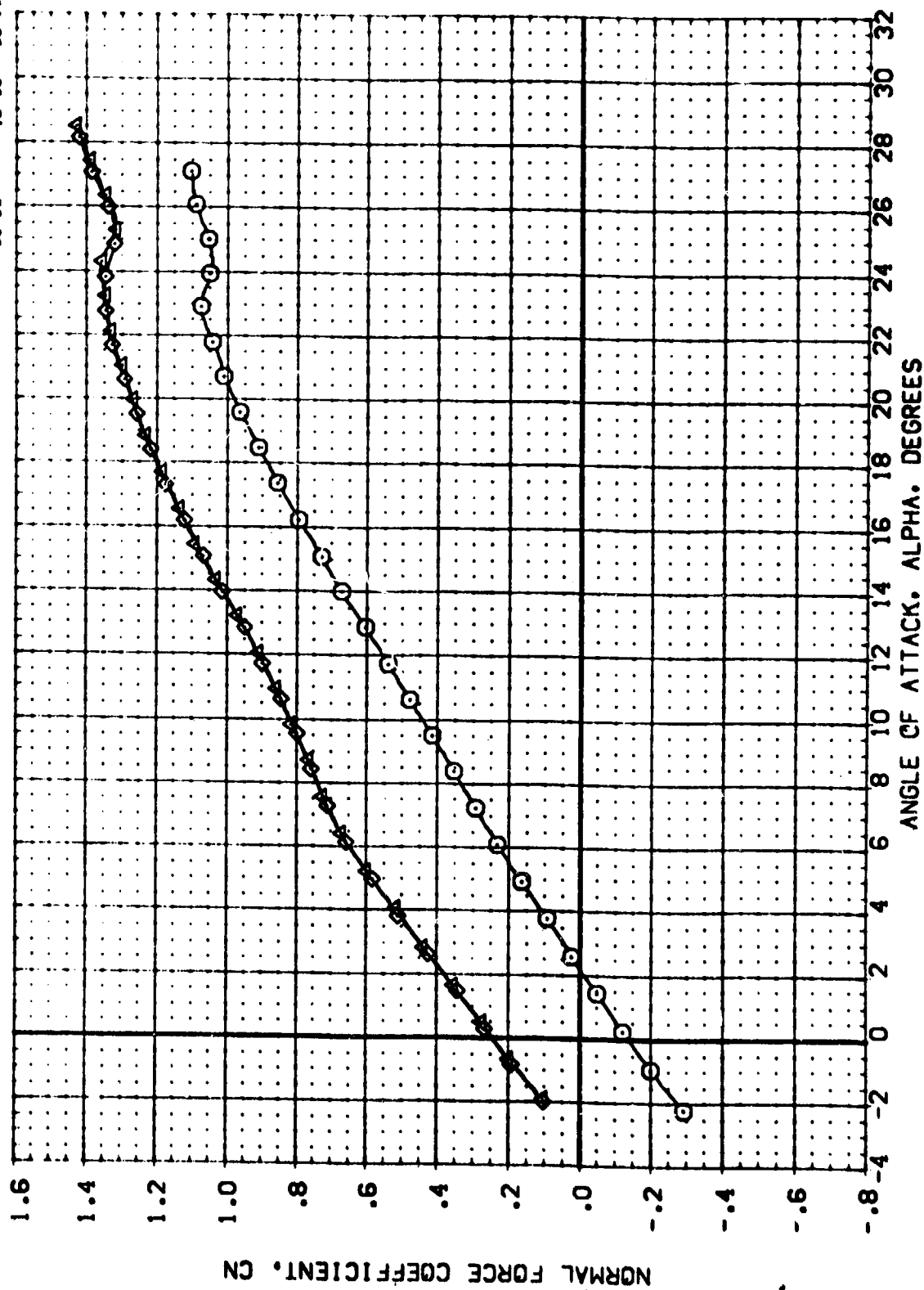


REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

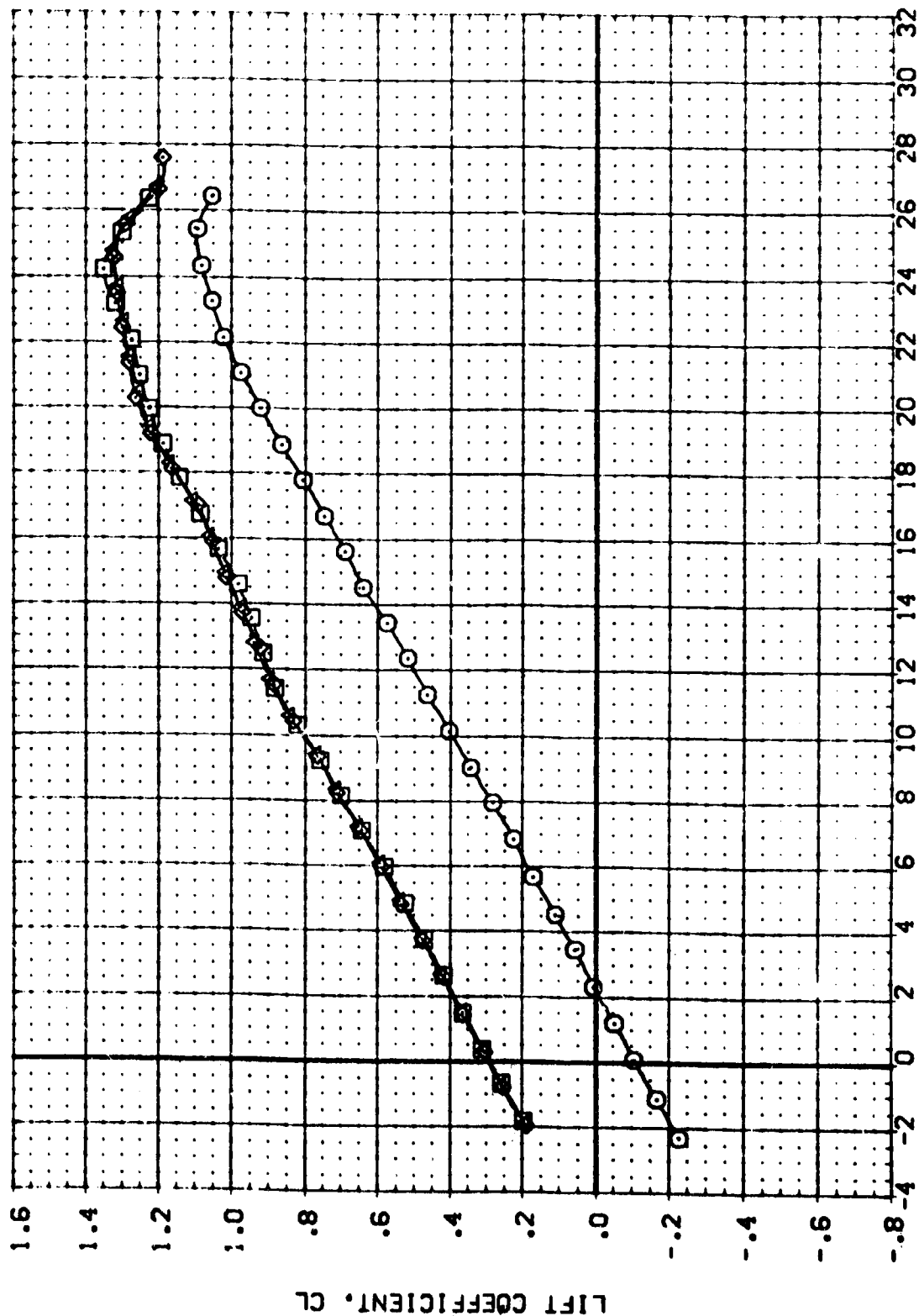
(A)MACH = .61

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
123001		3A68 B22 C7 M4 F5 V11	E23 V7 F5
123002		DATA NOT AVAILABLE	
123003		3A68 B22 C7 M4 F5 V11	E23 V7 F5
123004		3A68 B22 C7 M4 F5 V11	E23 V7 F5

REFL	ELEV	RJOLR	BLAP	REFERENCE	INFORM
7.000	00000	24.9100	4.25000	SRE	5003
7.000	00000	24.9100	3.75000	DRF	7003
7.000	00000	24.9100	3.25000	DRF	7003
7.000	00000	24.9100	3.25000	DRF	7003
8.000	00000	24.9100	3.25000	DRF	7003
				INFORM	5003
				SCALE	7003



DATA SET SYMBO	CONFIGURATION DESCRIPTION	RVL	ELEVON	R.O.F.R	BFLAP	REFERENCE INFORMATION
Q	2468 922 07 24 FS V111 E23 V7 208	7.000	.000	24.820	11.250	6053
X	2468 922 07 24 FS V111 E23 V7 208	5.000	15.000	24.820	13.750	7.122
	2468 922 07 24 FS V111 E23 V7 208	7.100	15.000	24.820	13.750	14.000
	2468 922 07 24 FS V111 E23 V7 208	8.000	15.000	24.820	13.750	12.671
						6.0000
						7.0000
						6.0150
						SCALE



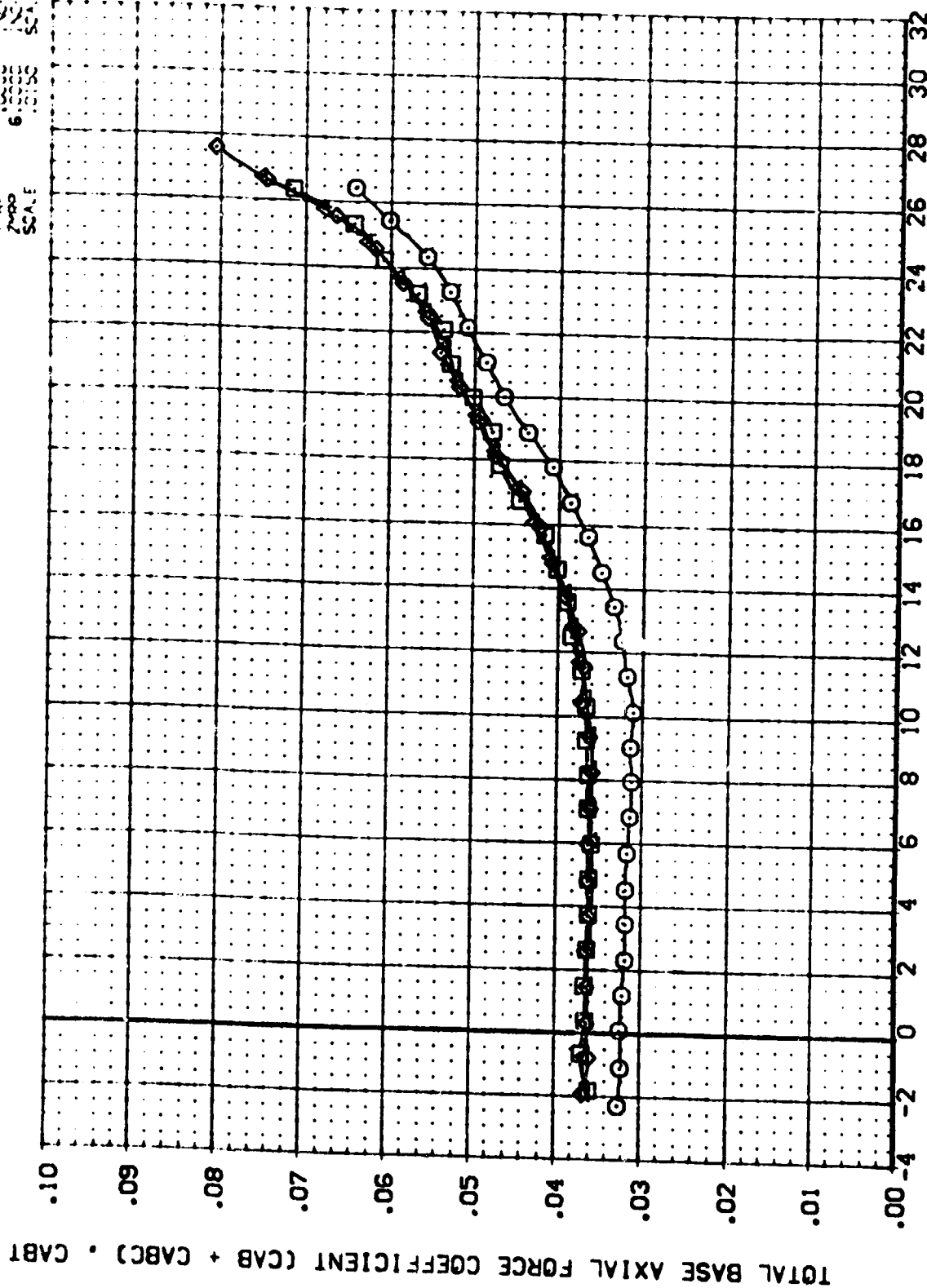
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = .61

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 000000 0000 0000 0000 0000 0000 0000 0000 0000 0000
 000000 0000 0000 0000 0000 0000 0000 0000 0000 0000
 000000 0000 0000 0000 0000 0000 0000 0000 0000 0000
 000000 0000 0000 0000 0000 0000 0000 0000 0000 0000

REFL ELEVON R/D/LR B/LAP SCALE REFERENCE INFORMATION
 7.000 5.000 24.920 1.250 6000 5000000000
 5.000 5.000 24.920 1.250 6000 5000000000
 7.000 5.000 24.920 1.250 6000 5000000000
 0.000 5.000 24.920 1.250 6000 5000000000

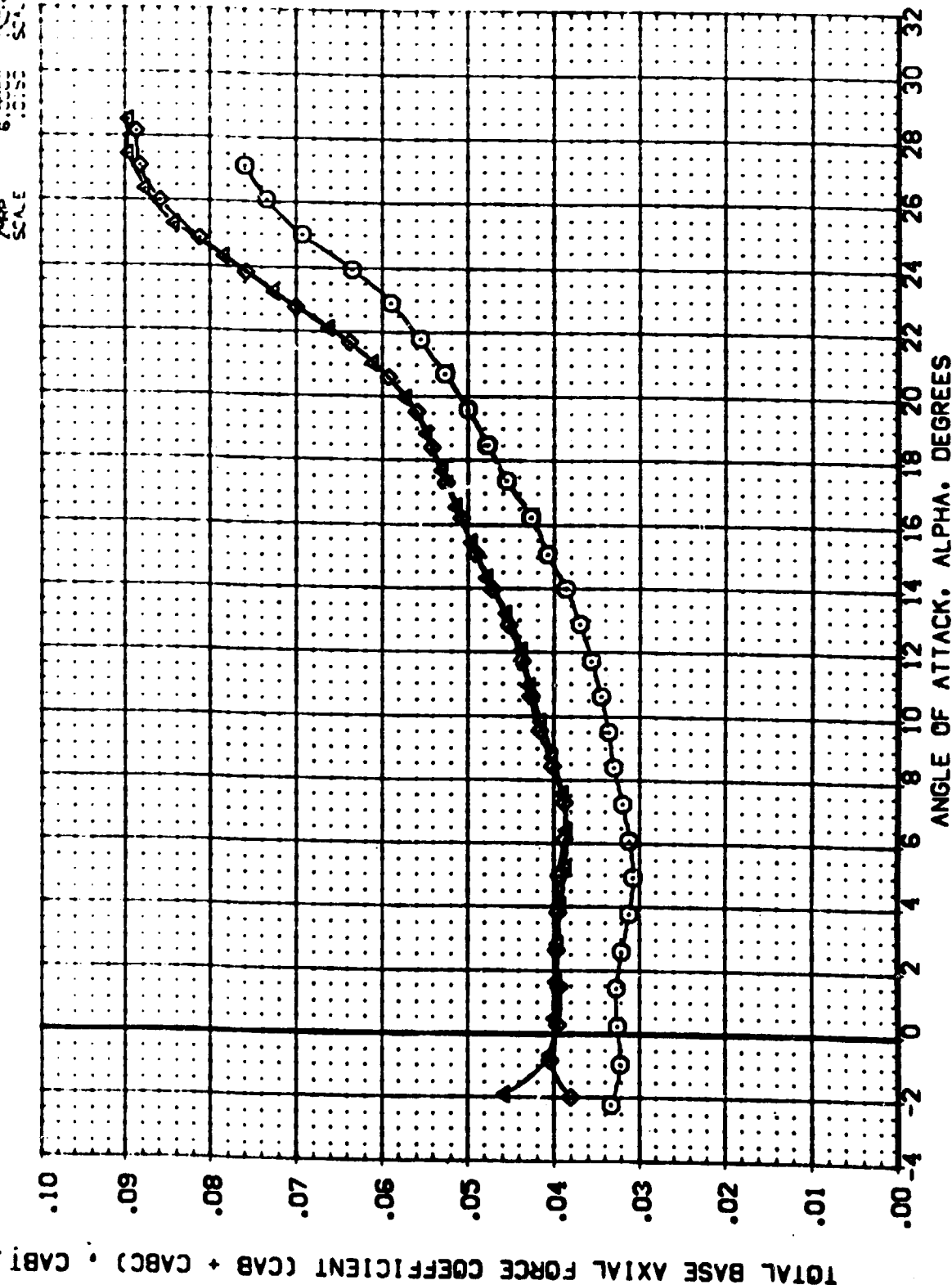


ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

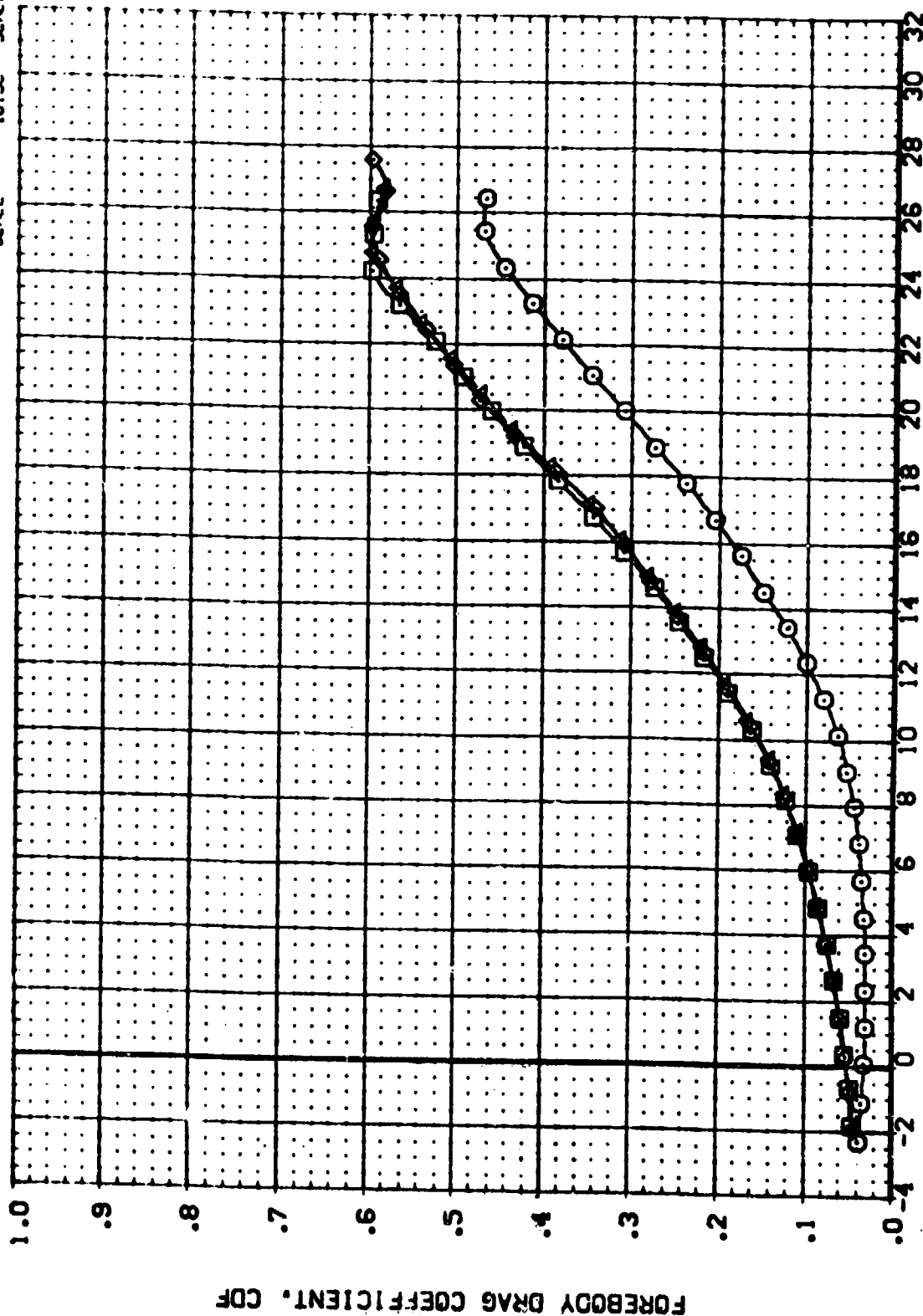
(A)MACH = .61

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RVL	ELEVON	R.O.F.L.R	BFLAP	REFERENCE	WIND TUNNEL
000001	I	0488 B22 CT M4 FS V111 E23 V7 R5	7.000	.000	24.920	14.250	SRI	8000
000002	I	DATA NOT AVAILABLE	5.000	.000	24.920	3.750	BR	7.000
000003	X	0488 B22 CT M4 FS V111 E23 V7 R5	7.000	.000	24.920	3.750	BR	7.000
000004	X	0488 B22 CT M4 FS V111 E23 V7 R5	8.000	.000	24.920	3.750	BR	7.000
							WIND TUNNEL	8000
							SCALE	6



REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(B)MACH = .91

[illegible]

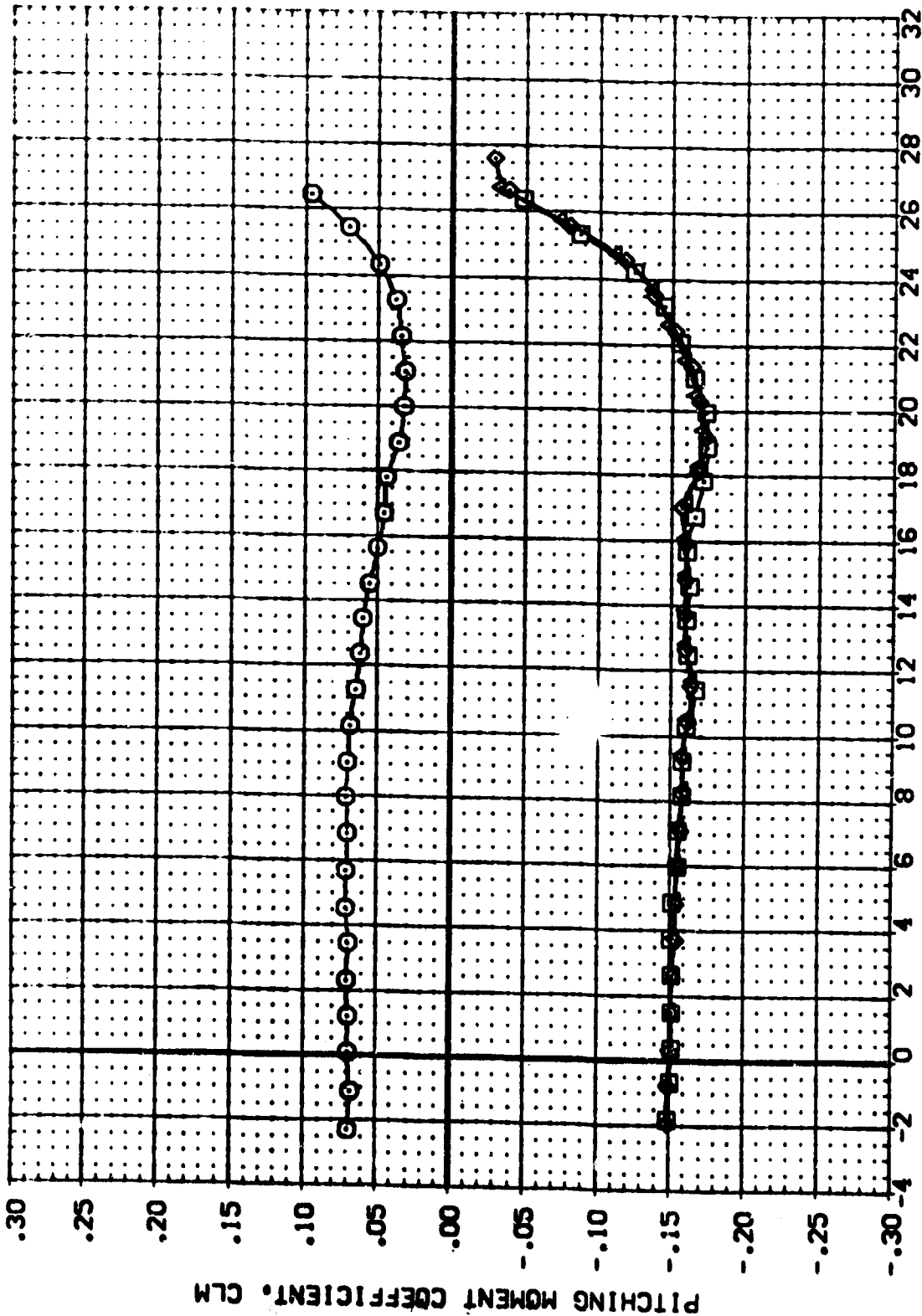
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

$$\text{CASH} = .61$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 000001 0488 B22 07 04 FS V11 E23 V7 RS
 000002 0488 B22 07 04 FS V11 E23 V7 RS
 000003 0488 B22 07 04 FS V11 E23 V7 RS
 000004 0488 B22 07 04 FS V11 E23 V7 RS

REFERENCE INFORMATION
 SREF 60000
 LREF 70000
 BREF 120000
 XREF 120000
 YREF 60000
 ZREF 60000
 SCALE 60000



REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = .61

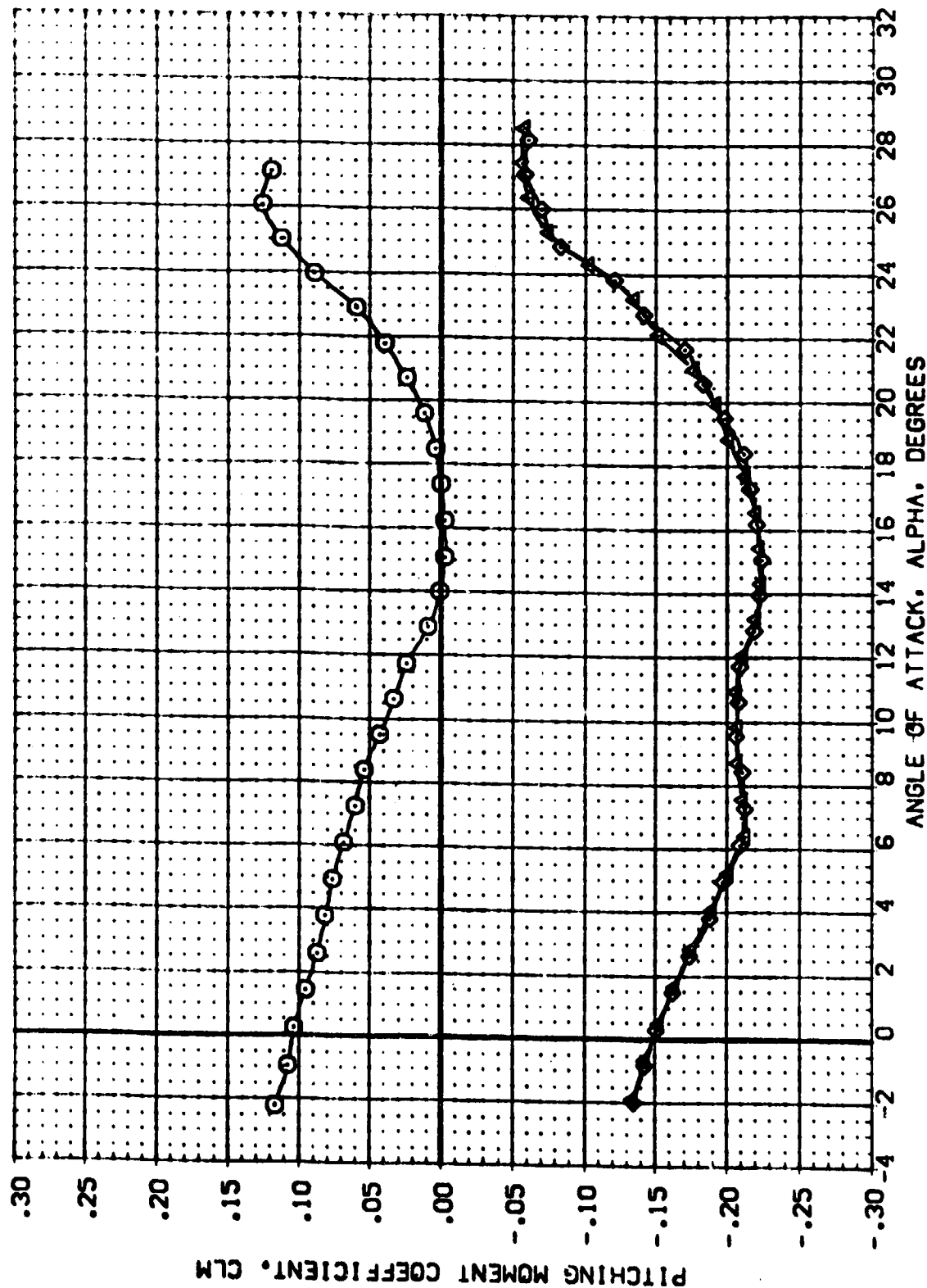
DATA SET SYMB. CONFIGURATION DESCRIPTION
 C 2A88 922 27 M4 F5 V111 E23 V7 R5
 DATA NO. AVAILABLE
 2A88 922 27 M4 F5 V111 E23 V7 R5
 2A88 922 27 M4 F5 V111 E23 V7 R5

ELEVON
 7.000
 5.000
 7.000
 8.000

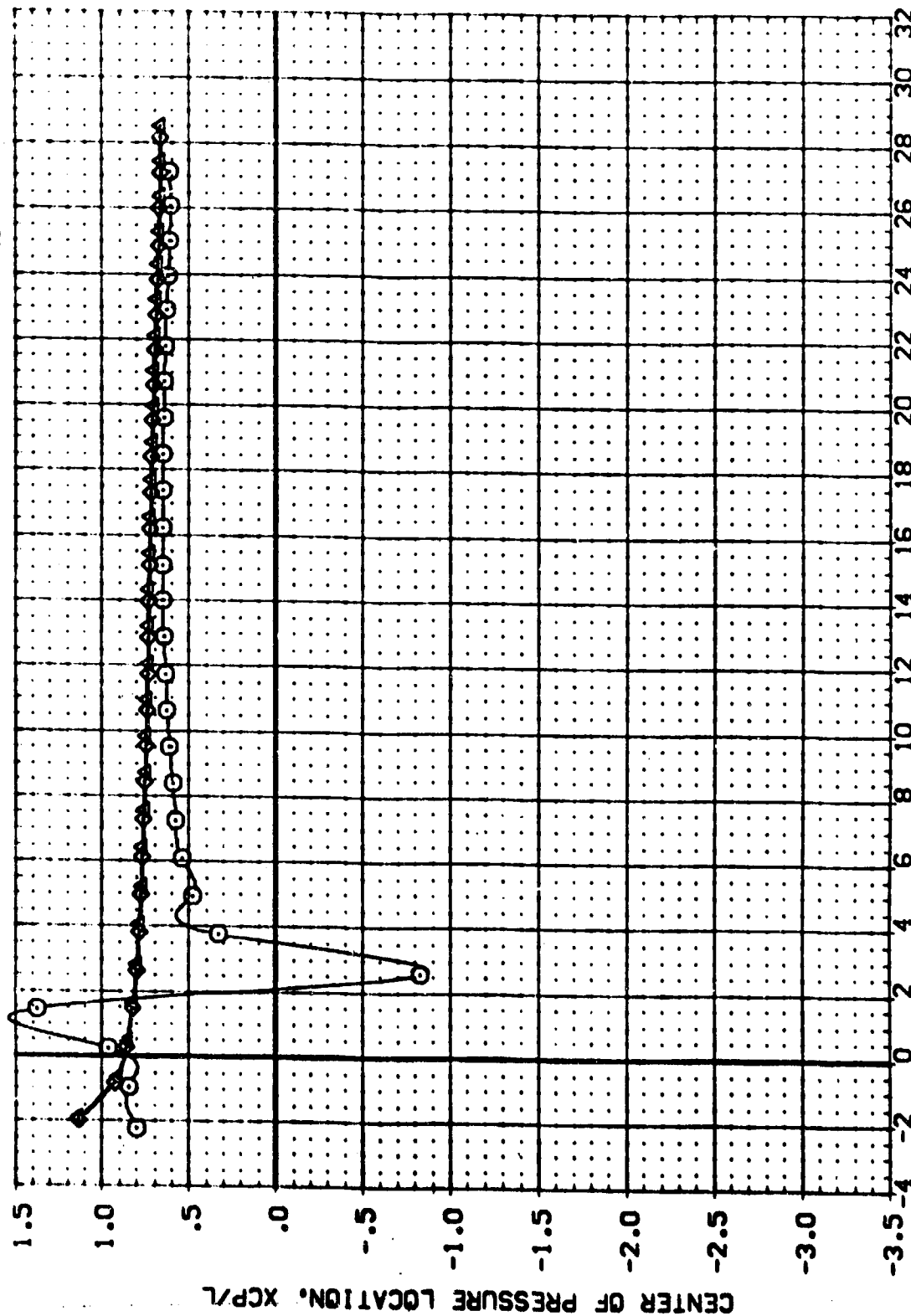
R.O.F.L.R
 24.920
 24.920
 24.920
 24.920

B.F.L.A.P
 4.250
 3.750
 3.750
 3.750

REFERENCE INFORMATION
 SREF 1.000
 LREF 7.000
 BREF 4.000
 XREF 2.000
 YREF 6.000
 ZREF 6.000
 SCALE 1.000



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
12900	12900	0468 B22 27 M4 FS V111	E23 V7 RS	SRF	6.53
12901	12901	DATA NOT AVAILABLE		LA	7.00
12902	12902	0468 B22 27 M4 FS V111	E23 V7 RS	BRF	12.6
12903	12903	0468 B22 27 M4 FS V111	E23 V7 RS	XREF	6.00
				WIND	6.00
				SCALE	6.00



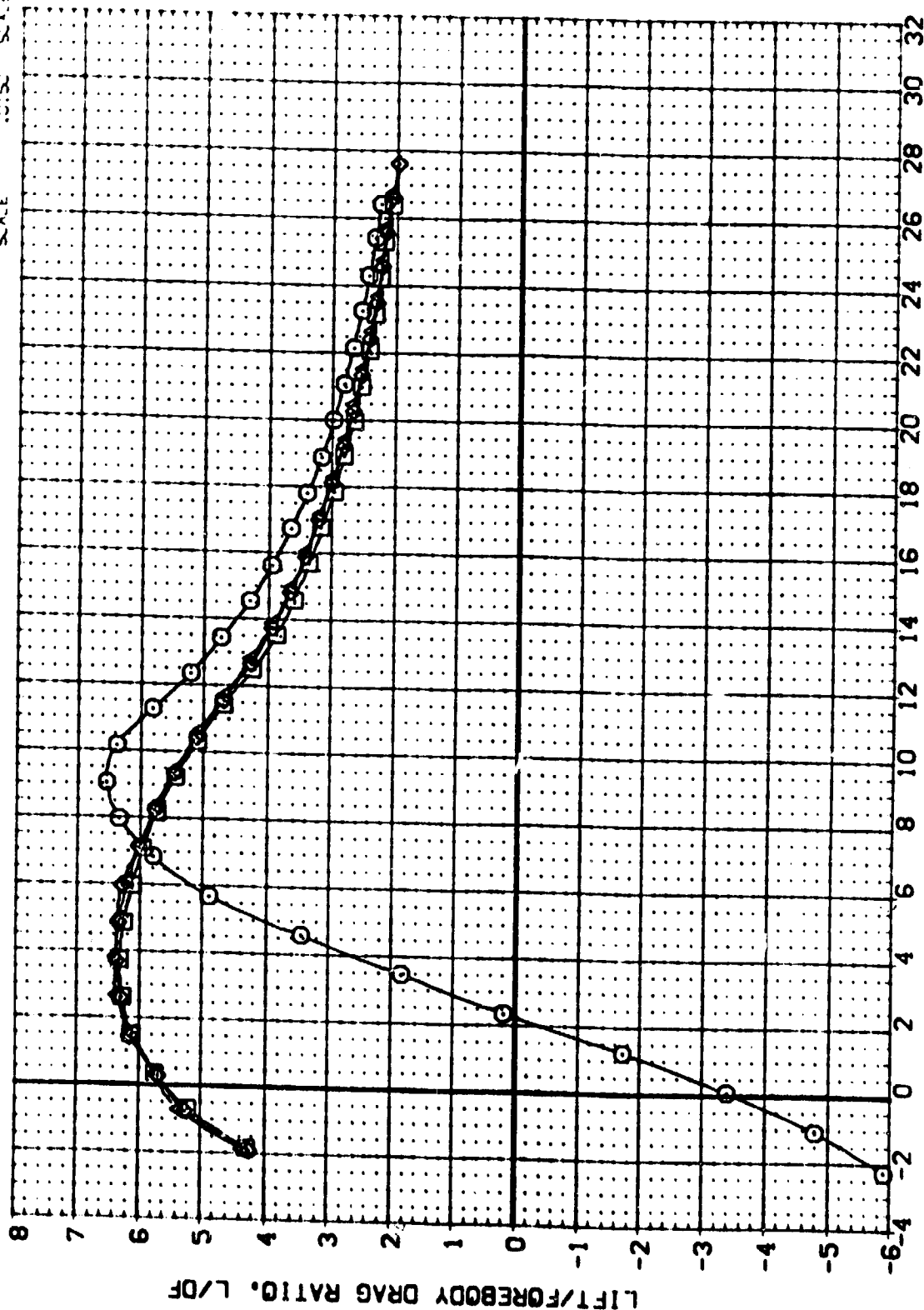
ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVEN = 15 DEGREES

(B)MACH = .91

DATA SET SYMBOL: 3A68 B22 C7 M4 E5 V11 E23 V7 R6
 3A68 B22 C7 M4 E5 V11 E23 V7 R6
 3A68 B22 C7 M4 E5 V11 E23 V7 R6
 3A68 B22 C7 M4 E5 V11 E23 V7 R6

REFERENCE INFORMATION:
 SREF 6053
 LREF 7.000
 BREF 4.000
 XREF 2.000
 YREF 0.000
 ZREF 0.000
 SCALE 6.000



ANGLE OF ATTACK, ALPHA, DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = .61

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	ELEVON	RJDLR	BLAP	REFERENCE INFORMATION
CA68 B22 C7 M4 FS V11	E23 V7 RS	7.000	.000	24.920	-14.750	SREF
CA68 B22 C7 M4 FS V11	E23 V7 RS	5.000	15.000	24.920	13.750	LRFF
CA68 B22 C7 M4 FS V11	E23 V7 RS	7.100	15.000	24.920	13.750	BRFF
CA68 B22 C7 M4 FS V11	E23 V7 RS	8.000	15.000	24.920	13.750	XMRD
						VRD0
						ZMRD
						SCALE
						SCALE

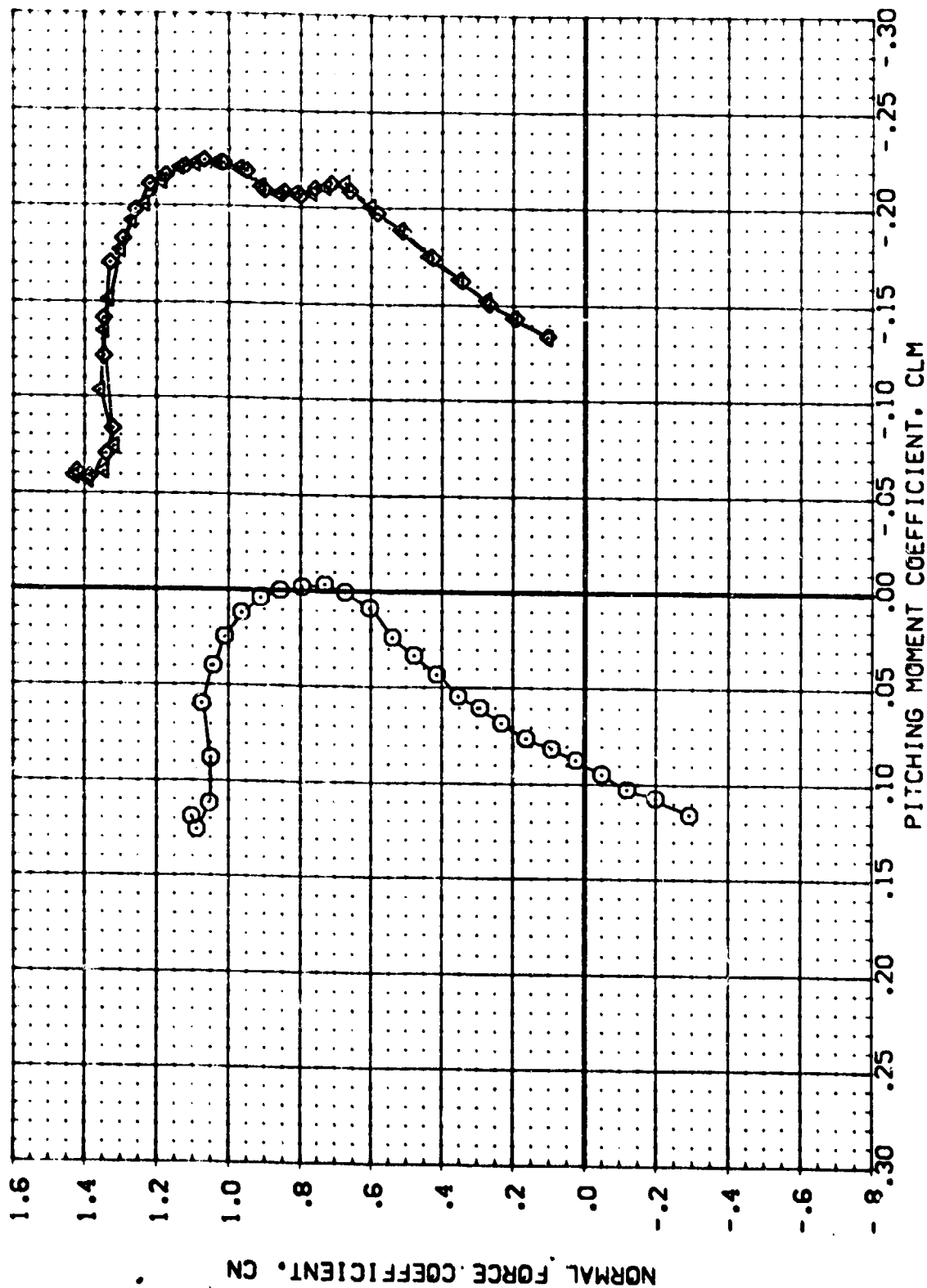


PITCHING MOMENT COEFFICIENT, CLM

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = .61

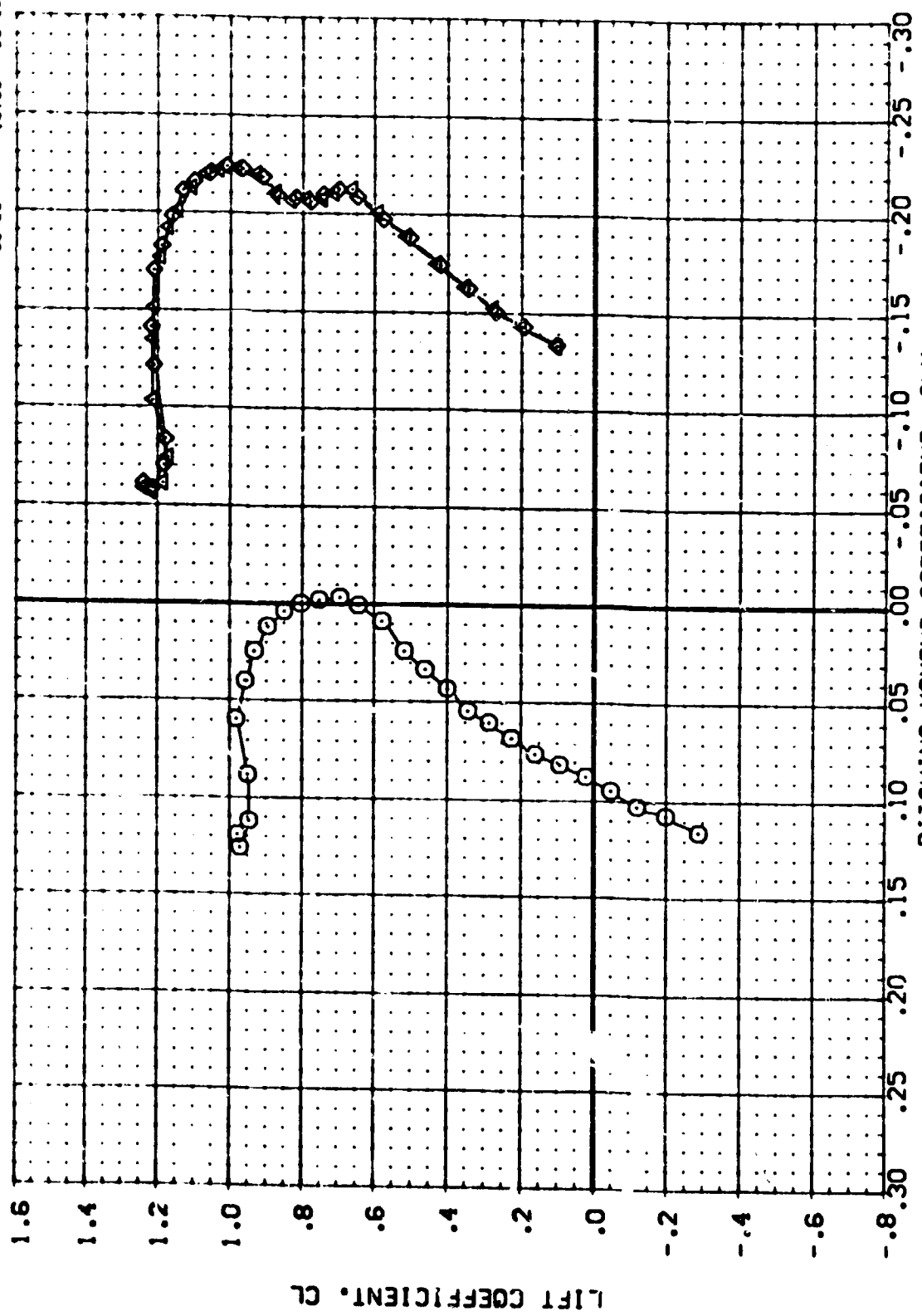
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RNVL	ELEVON	RJDFLR	BLAP	REFERENCE INFORMATION
CDCC1	CAS8 B22 C7 M4 FS VIII E23 V7 RS	7.000	.000	24.920	-14.250	SREF -6053
CDCC2	CAS8 B22 C7 M4 FS VIII E23 V7 RS	5.000	15.000	24.920	13.750	SREF 7.1223
CDCC3	CAS8 B22 C7 M4 FS VIII E23 V7 RS	7.000	15.000	24.920	13.750	SREF 14.0500
CDCC4	CAS8 B22 C7 M4 FS VIII E23 V7 RS	8.000	15.000	24.920	13.750	SREF 12.6171
						VMPO 6.0000
						VMPO 7.0000
						SCALE .0150



REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(B)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	Q/V	ELEVON	R/D/LR	BLAP	REF	REFERENCE INFORMATION
00000	1	0458 322	27 M 15 V III 123 17 25	7.000	15.000	24.920	14.750	SPRF	6053
00000	2	0458 322	27 M 15 V III 123 17 25	5.000	15.000	24.920	13.750	BRF	7.1222
00000	3	0458 322	27 M 15 V III 123 17 25	7.000	15.000	24.920	13.750	BRF	4.6027
00000	4	0458 322	27 M 15 V III 123 17 25	8.000	15.000	24.920	13.750	BRF	12.6111
								WAPP	6.0000
								WAPP	6.0000



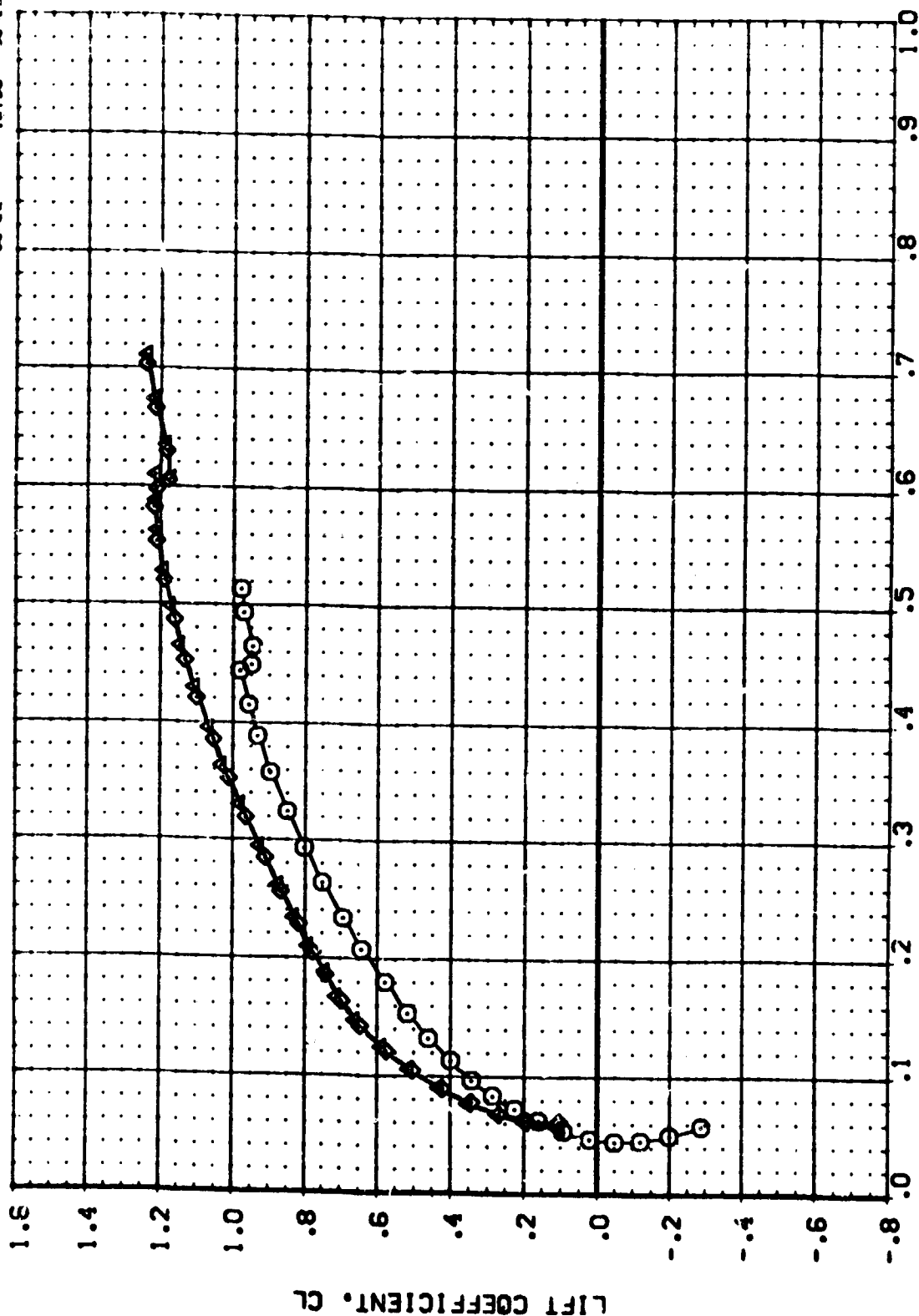
REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(B)MACH = .91

DATA SET SYMBO. CONFIGURATION DESCRIPTION
 0168 B22 C7 M4 FS V111 E23 V7 RS
 DATA NOT AVAILABLE
 0168 B22 C7 M4 FS V111 E23 V7 RS
 0168 B22 C7 M4 FS V111 E23 V7 RS

RN/L ELEVON RJDLR BFLP
 7.000 .000 24.920 -14.240
 5.000 15.000 24.920 13.750
 7.100 15.000 24.920 13.750
 8.000 15.000 24.920 13.750

REFERENCE INFORMATION
 SREF .6053 SQ.F.
 LREF 7.1222 INCHES
 BREF 14.0502 INCHES
 XREF 12.6171 INCHES
 YREF .0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150

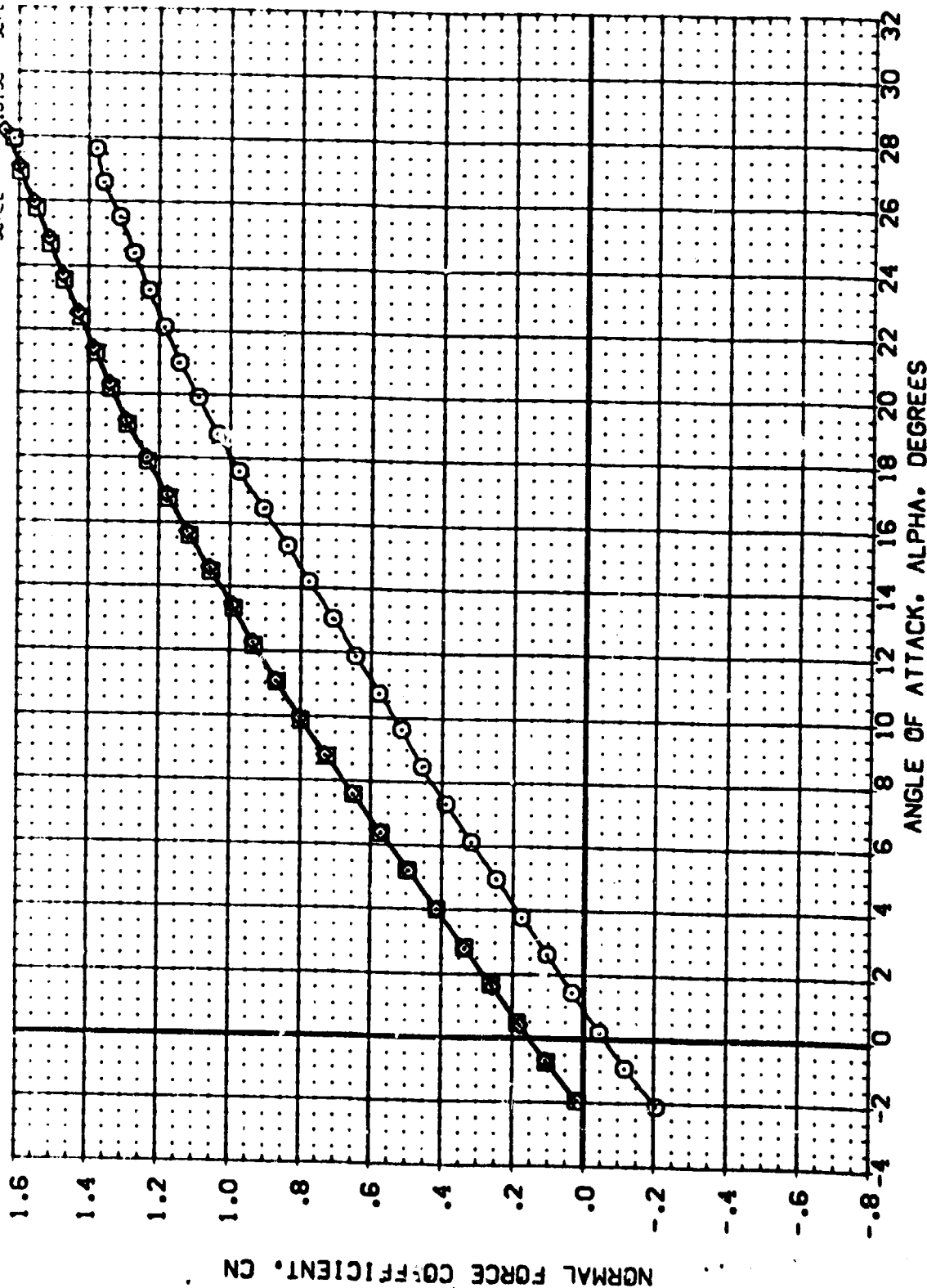


REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(B)MACH = .91

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 C08022 C08022 C7 C4 FS V111 E23 V7 RS
 C08022 C08022 C7 C4 FS V111 E23 V7 RS
 C08022 C08022 C7 C4 FS V111 E23 V7 RS

RV/L ELEVON R/D/LR B/LAP REFERENCE INFORMATION
 7.000 .000 54.970 -14.250 SREF 6.553
 7.100 15.000 54.970 13.750 LREF 7.122
 8.100 15.000 54.970 13.750 BREF 14.000
 XREF 12.677
 YREF .000
 ZREF .000
 SCALE 6.0150



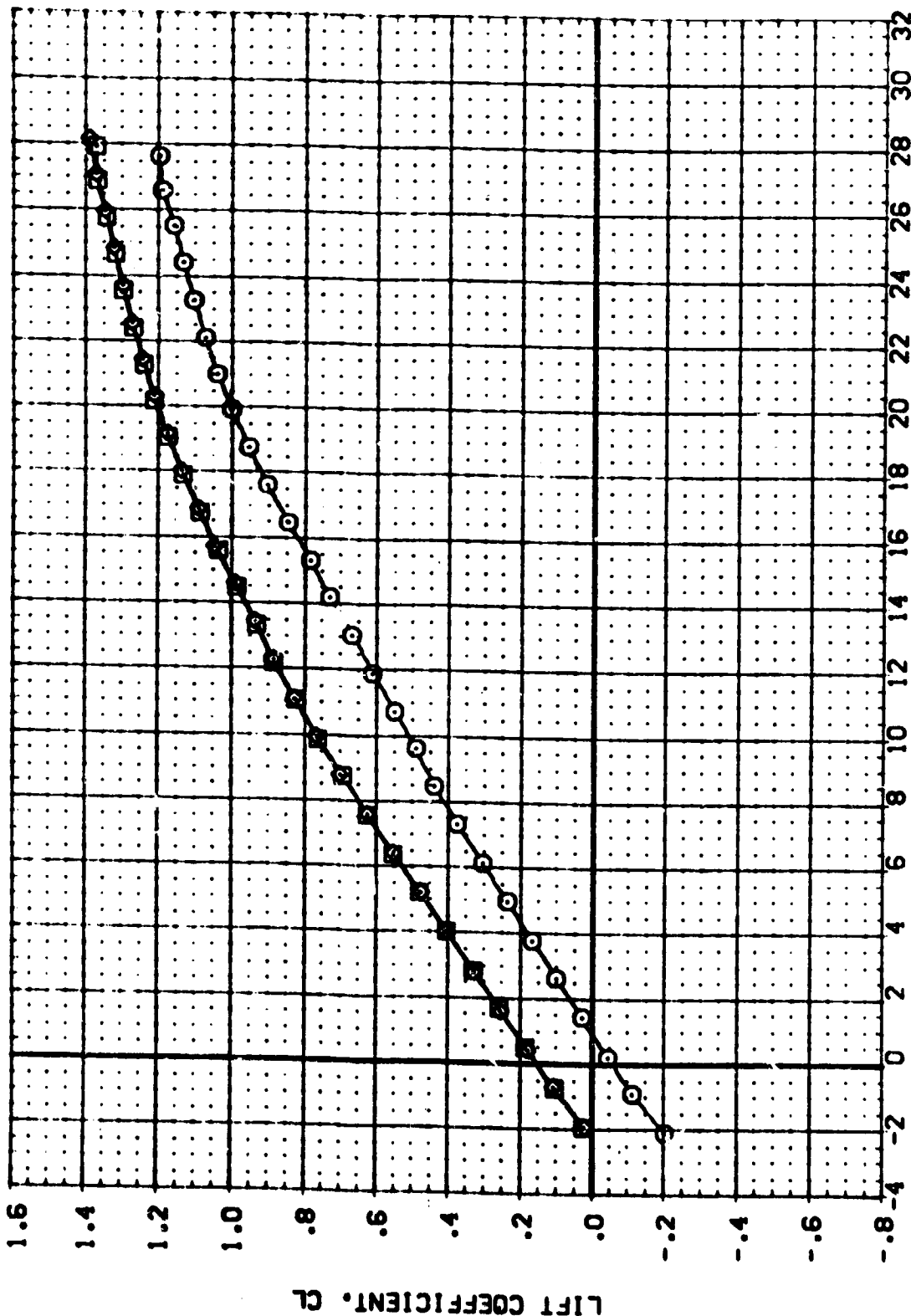
REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = 1.21

DATA SET SYMBOL: C10
 CONFIGURATION DESCRIPTION: CAS8 B22 C7 M4 F5 V11: E23 V7 R5
 CAS8 B22 C7 M4 F5 V11: E23 V7 R5
 CAS8 B22 C7 M4 F5 V11: E23 V7 R5

RVL: 7.000
 ELEVON: 5.000
 ROLF: 54.920
 BFLAP: 3.750

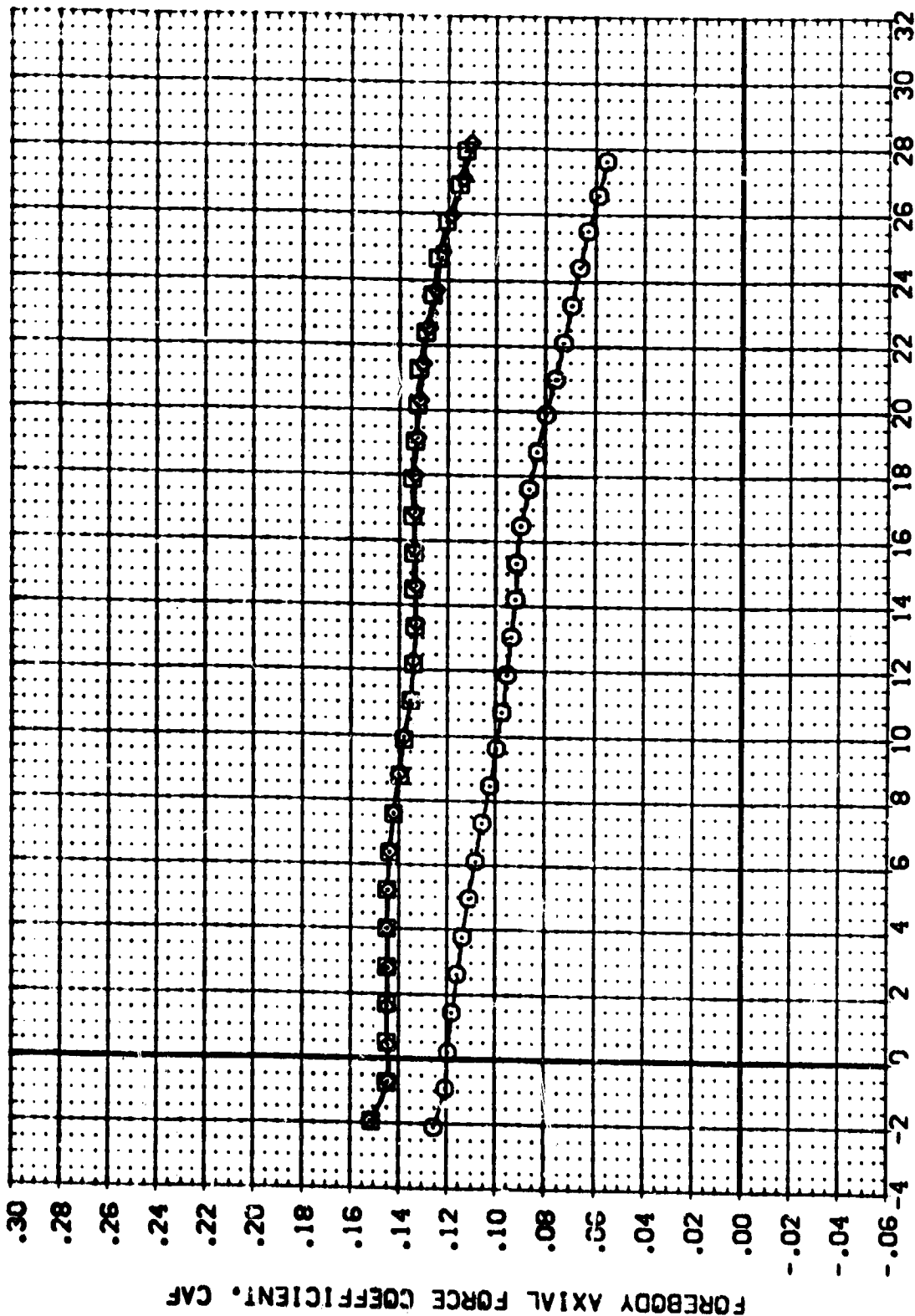
REFERENCE INFORMATION:
 CASE: 6553
 LIFT: 7.122
 BREF: 14.552
 SCALE: 6.125



REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = 0.2

REV.	ELEVATION	ADJUSTER	BEARING	REFERENCE	STATION
7.0000	13.8888	54.9000	-14.2500	6003	5555555
7.0000	13.8888	54.9000	-13.7500	7123	5555555
8.0000	13.8888	54.9000	-13.2500	6003	5555555
8.0000	13.8888	54.9000	-12.7500	7123	5555555
8.0000	13.8888	54.9000	-12.2500	6003	5555555
8.0000	13.8888	54.9000	-11.7500	7123	5555555
8.0000	13.8888	54.9000	-11.2500	6003	5555555
8.0000	13.8888	54.9000	-10.7500	7123	5555555
8.0000	13.8888	54.9000	-10.2500	6003	5555555
8.0000	13.8888	54.9000	-9.7500	7123	5555555
8.0000	13.8888	54.9000	-9.2500	6003	5555555
8.0000	13.8888	54.9000	-8.7500	7123	5555555
8.0000	13.8888	54.9000	-8.2500	6003	5555555
8.0000	13.8888	54.9000	-7.7500	7123	5555555
8.0000	13.8888	54.9000	-7.2500	6003	5555555
8.0000	13.8888	54.9000	-6.7500	7123	5555555
8.0000	13.8888	54.9000	-6.2500	6003	5555555
8.0000	13.8888	54.9000	-5.7500	7123	5555555
8.0000	13.8888	54.9000	-5.2500	6003	5555555
8.0000	13.8888	54.9000	-4.7500	7123	5555555
8.0000	13.8888	54.9000	-4.2500	6003	5555555
8.0000	13.8888	54.9000	-3.7500	7123	5555555
8.0000	13.8888	54.9000	-3.2500	6003	5555555
8.0000	13.8888	54.9000	-2.7500	7123	5555555
8.0000	13.8888	54.9000	-2.2500	6003	5555555
8.0000	13.8888	54.9000	-1.7500	7123	5555555
8.0000	13.8888	54.9000	-1.2500	6003	5555555
8.0000	13.8888	54.9000	-0.7500	7123	5555555
8.0000	13.8888	54.9000	-0.2500	6003	5555555
8.0000	13.8888	54.9000	0.2500	7123	5555555
8.0000	13.8888	54.9000	0.7500	6003	5555555
8.0000	13.8888	54.9000	1.2500	7123	5555555
8.0000	13.8888	54.9000	1.7500	6003	5555555
8.0000	13.8888	54.9000	2.2500	7123	5555555
8.0000	13.8888	54.9000	2.7500	6003	5555555
8.0000	13.8888	54.9000	3.2500	7123	5555555
8.0000	13.8888	54.9000	3.7500	6003	5555555
8.0000	13.8888	54.9000	4.2500	7123	5555555
8.0000	13.8888	54.9000	4.7500	6003	5555555
8.0000	13.8888	54.9000	5.2500	7123	5555555
8.0000	13.8888	54.9000	5.7500	6003	5555555
8.0000	13.8888	54.9000	6.2500	7123	5555555
8.0000	13.8888	54.9000	6.7500	6003	5555555
8.0000	13.8888	54.9000	7.2500	7123	5555555
8.0000	13.8888	54.9000	7.7500	6003	5555555
8.0000	13.8888	54.9000	8.2500	7123	5555555
8.0000	13.8888	54.9000	8.7500	6003	5555555
8.0000	13.8888	54.9000	9.2500	7123	5555555
8.0000	13.8888	54.9000	9.7500	6003	5555555
8.0000	13.8888	54.9000	10.2500	7123	5555555
8.0000					

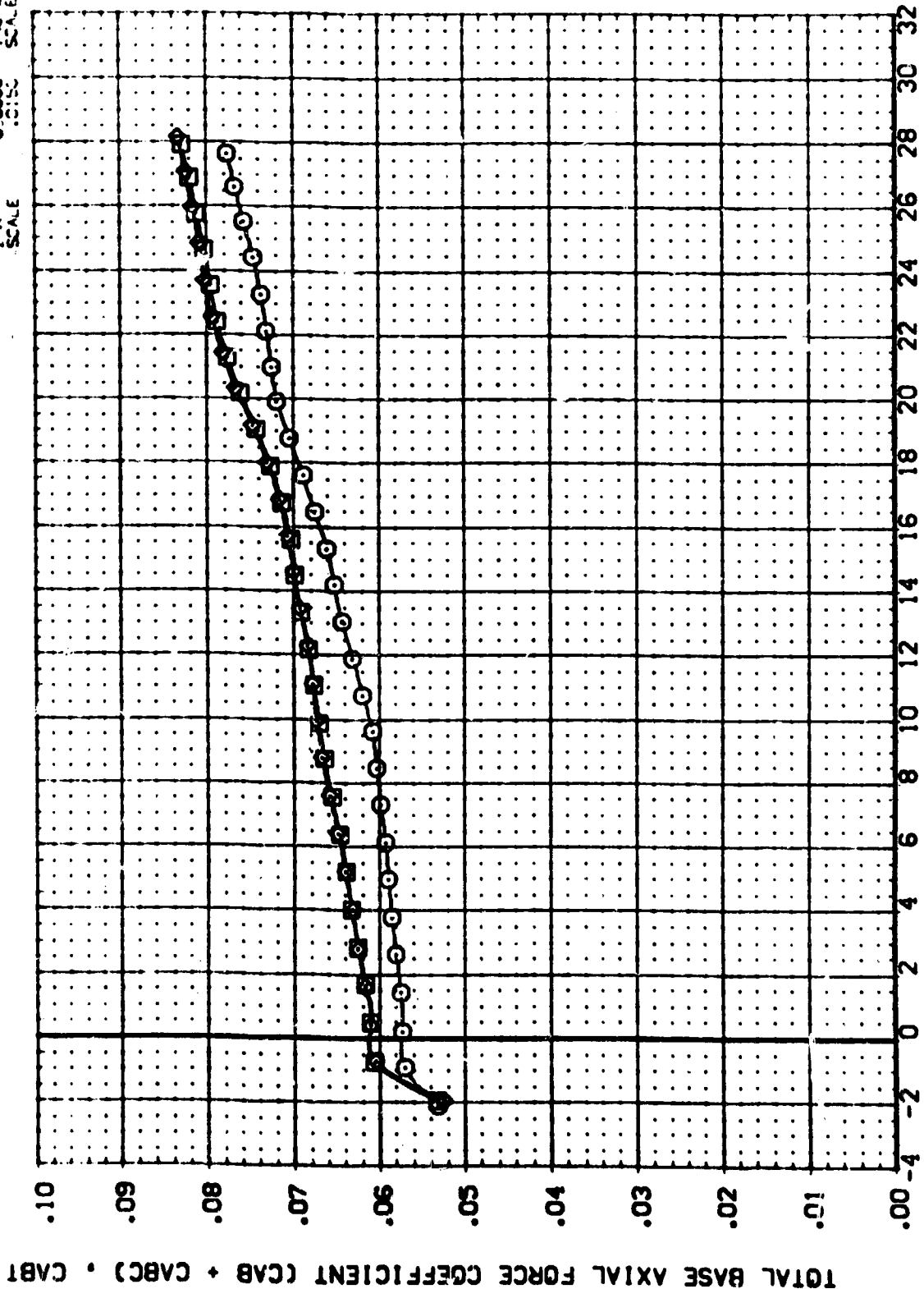


ANGLE OF ATTACK. ALPHA. DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

$$j_{\text{MACH}} = 1.21$$

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
01	01	2A68 822 27 M4 T5 V111	E23 V7 R5	SREF	6533
02	02	2A68 822 27 M4 T5 V111	E23 V7 R5	LRIF	7.1222
03	03	2A68 822 27 M4 T5 V111	E23 V7 R5	BRIF	14.6027
04	04	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
05	05	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
06	06	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
07	07	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
08	08	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
09	09	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
10	10	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
11	11	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
12	12	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
13	13	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
14	14	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
15	15	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
16	16	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
17	17	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
18	18	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
19	19	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
20	20	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
21	21	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
22	22	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
23	23	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
24	24	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
25	25	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
26	26	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
27	27	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
28	28	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
29	29	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
30	30	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
31	31	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000
32	32	2A68 822 27 M4 T5 V111	E23 V7 R5	VRPO	12.6000

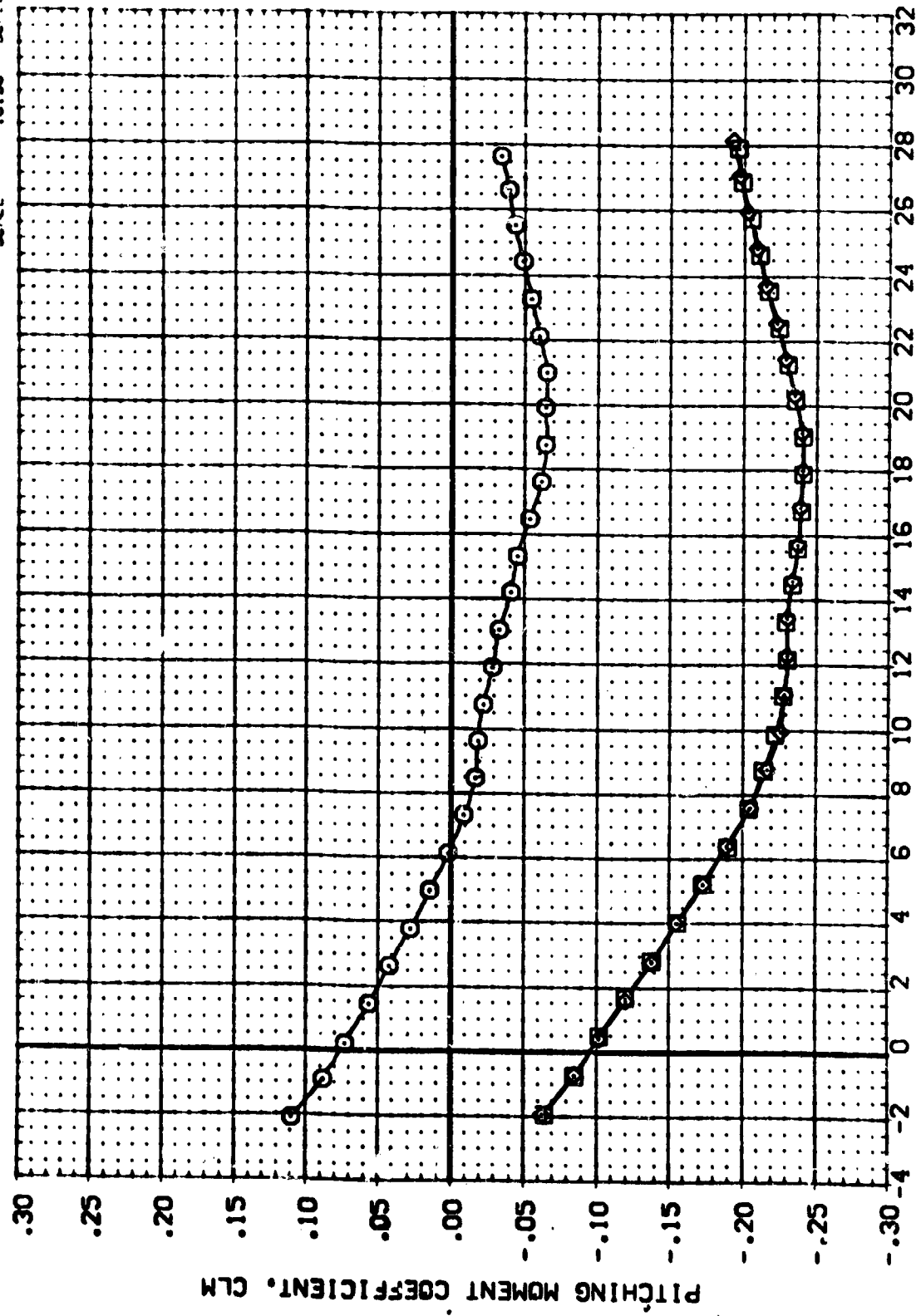


REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = 1.21

DATA SET: SYMBO. CONFIGURATION DESCRIPTION
 () 2A68 B22 27 M4 FS V111 E23 V7 RS
 () 2A68 B22 27 M4 FS V111 E23 V7 RS
 () 2A68 B22 27 M4 FS V111 E23 V7 RS

RM/L ELEVON ROLFLR BLAP REFERENCE INFORMATION
 7.000 .000 54.920 -14.250 SREF
 8.100 15.000 54.920 3.750 LREF
 8.100 15.000 54.920 3.750 BREF
 6.000 6.000 6.000 6.000 XREF
 6.000 6.000 6.000 6.000 YREF
 6.000 6.000 6.000 6.000 ZREF
 6.000 6.000 6.000 6.000 SCALE

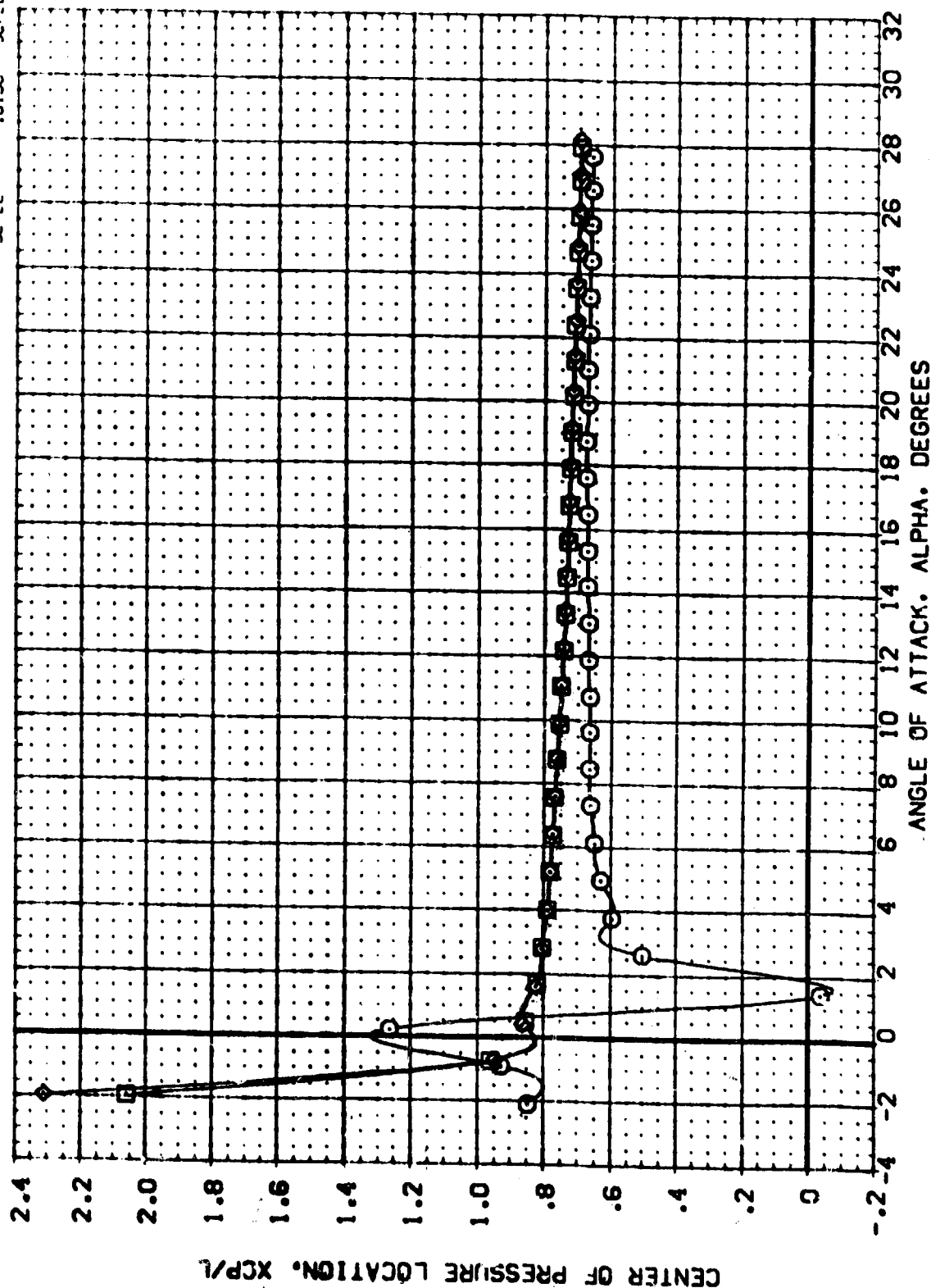


ANGLE OF ATTACK. ALPHA. DEGREES

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = 1.21

DATA SET	SUBC	CONVERSION	DESCRIPTION	RVL	ELEV	RJOLR	BLAP	REFERENCE	INFORMATION
DDC2	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	-14.250	6053	SCF
DDC3	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	3.750	7.273	REF
DDC4	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC5	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC6	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC7	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC8	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC9	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC10	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC11	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC12	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC13	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC14	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC15	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC16	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC17	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC18	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC19	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC20	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC21	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC22	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC23	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC24	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC25	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC26	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC27	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC28	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC29	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC30	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC31	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC32	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC33	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC34	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5	7.000	.000	54.920	13.750	14.273	BLP
DDC35	C	CAG8 B22	C7 M4 F5 V111 E23 V7 R5</						



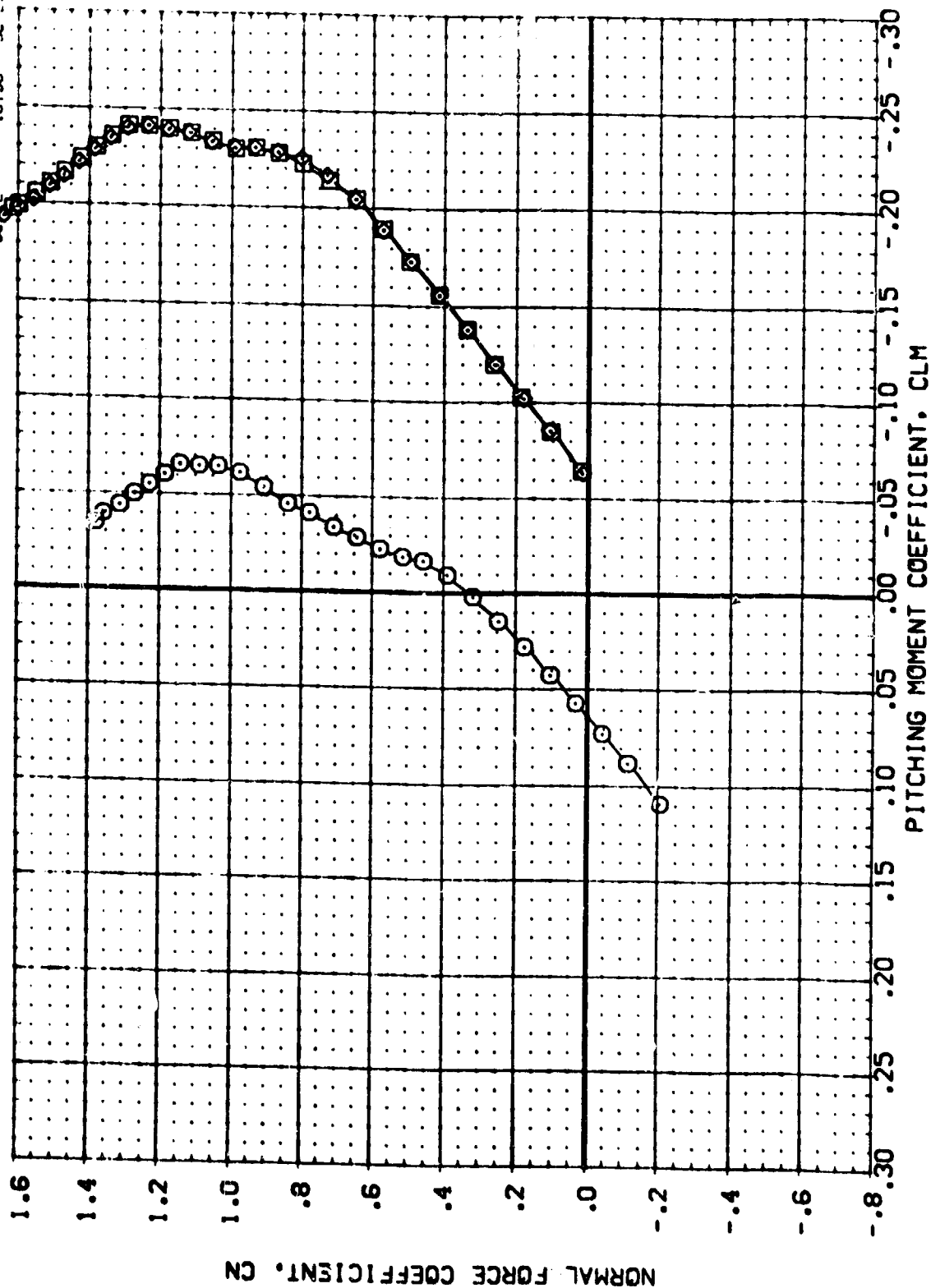
REYNOLDS NUMBER EFFECT - ELEVEN = 15 DEGREES

$$(\Delta)^{2.21} \text{ACH} = 1.21$$

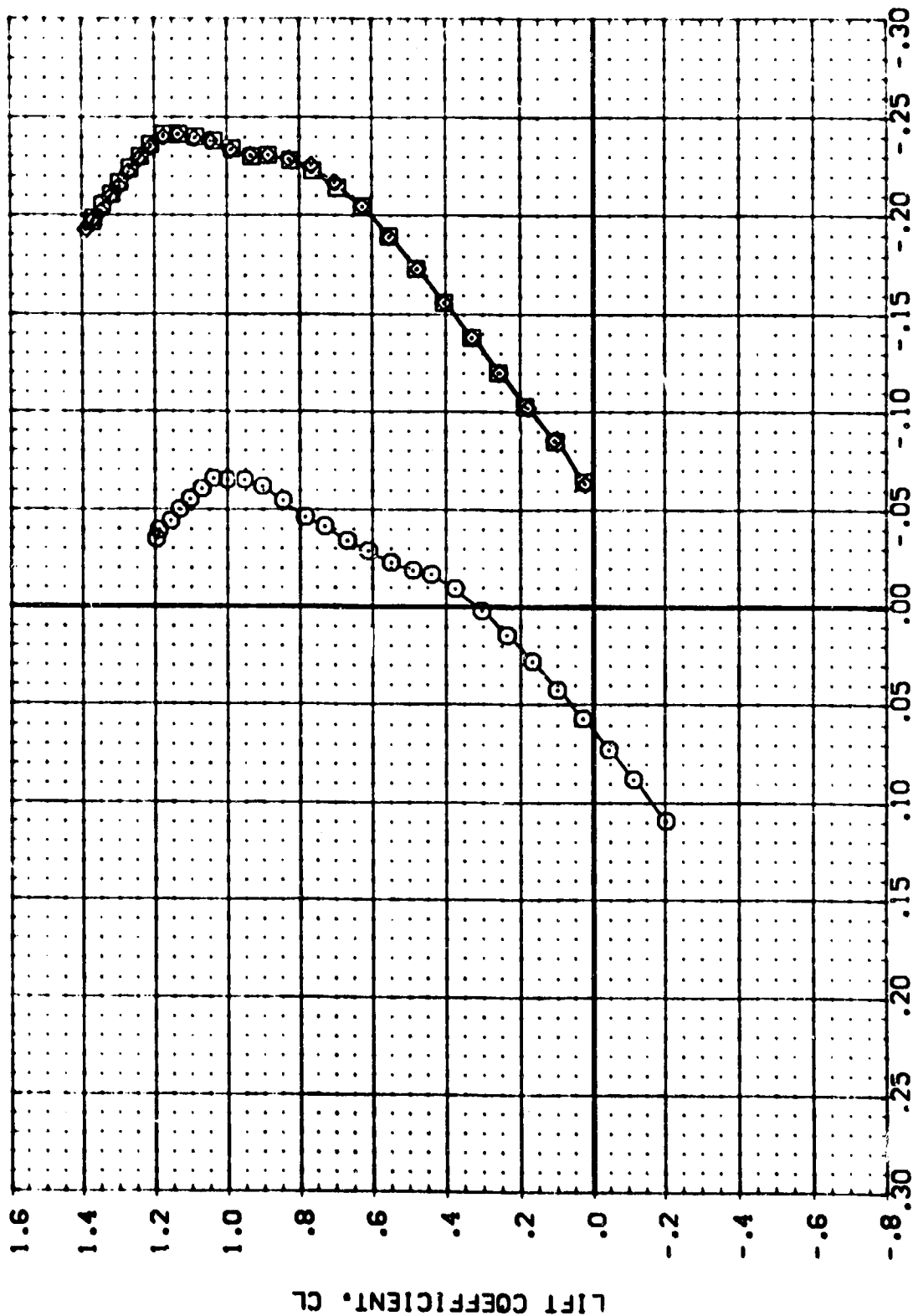
DATA SET: SYMBL CONFIGURATION DESCRIPTION
 (C)0021 Q DASH B22 C7 M4 FS V11 E23 V7 RS
 (C)0015 Q DASH B22 C7 M4 FS V11 E23 V7 RS
 (C)0016 Q DASH B22 C7 M4 FS V11 E23 V7 RS

RVL ELEVON ROLLR BE LAP
 7.000 .000 54.920 -14.250
 7.100 15.000 54.920 13.750
 8.100 15.000 54.920 13.750

REFERENCE INFORMATION
 SREF 6253 SCALE
 LREF 7.000
 BREF 14.000
 XREF 12.617
 YREF 6.000
 ZREF 6.000
 SCALE 6.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REV.	ELEVON	RJOL R	BLAP	REFERENCE INFORMATION
00002	0468 822 C7 M4 FS V111 E23 V7 R5	7.000	0.000	54.920	14.750	SREF 6053
000015	0468 822 C7 M4 FS V111 E23 V7 R5	7.100	15.000	54.920	13.750	LREF 7.1222
000016	0468 822 C7 M4 FS V111 E23 V7 R5	8.100	15.000	54.920	13.750	BREF 14.0500
						XREF 12.6171
						YREF 6.0000
						ZREF 6.0000
						SCALE 0.0500



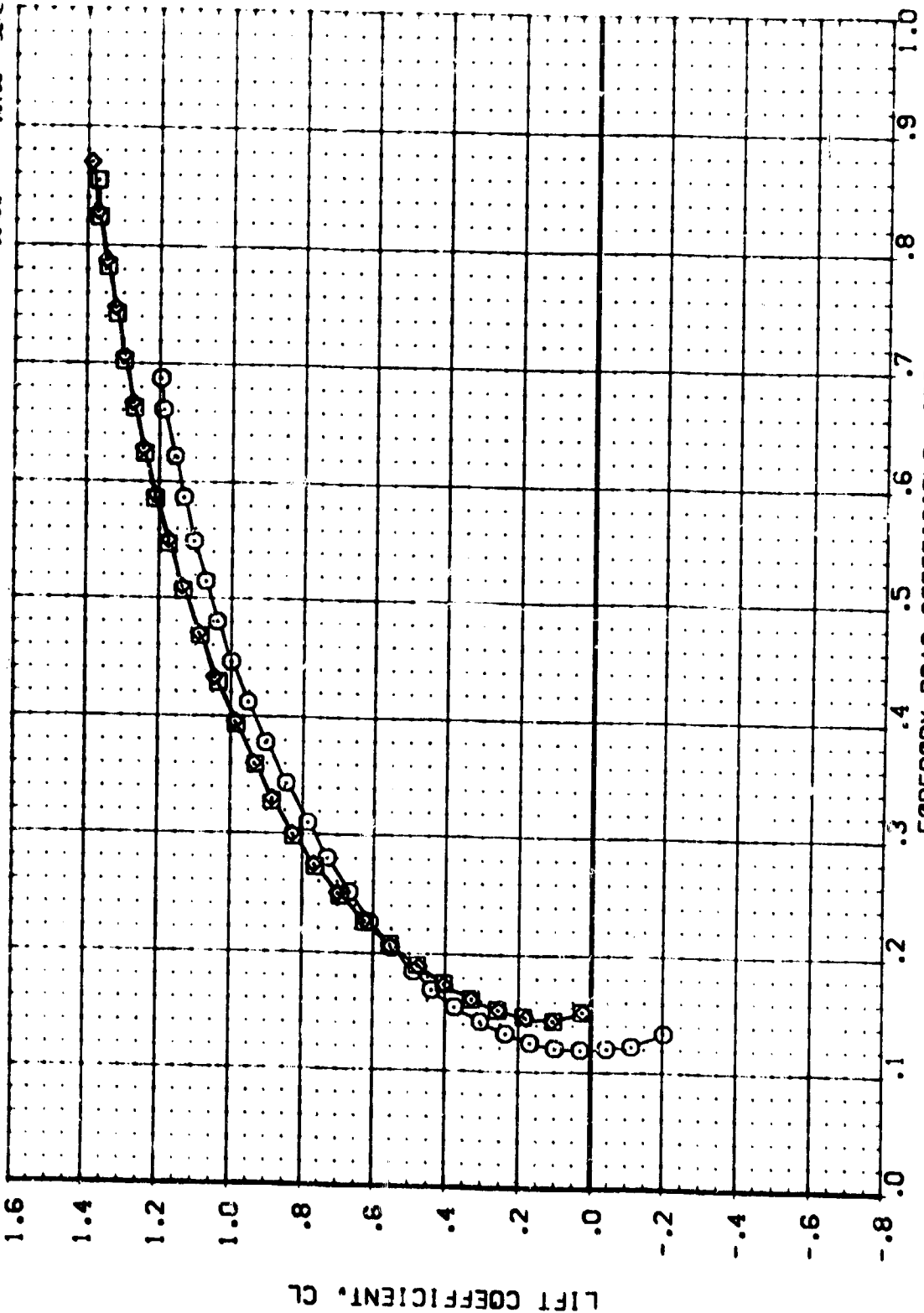
PITCHING MOMENT COEFFICIENT, CLM

REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

CLMACH = 1.2:

DATA SET SYMBOL: 010
 CONFIGURATION DESCRIPTION: 010
 0108 822 27 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

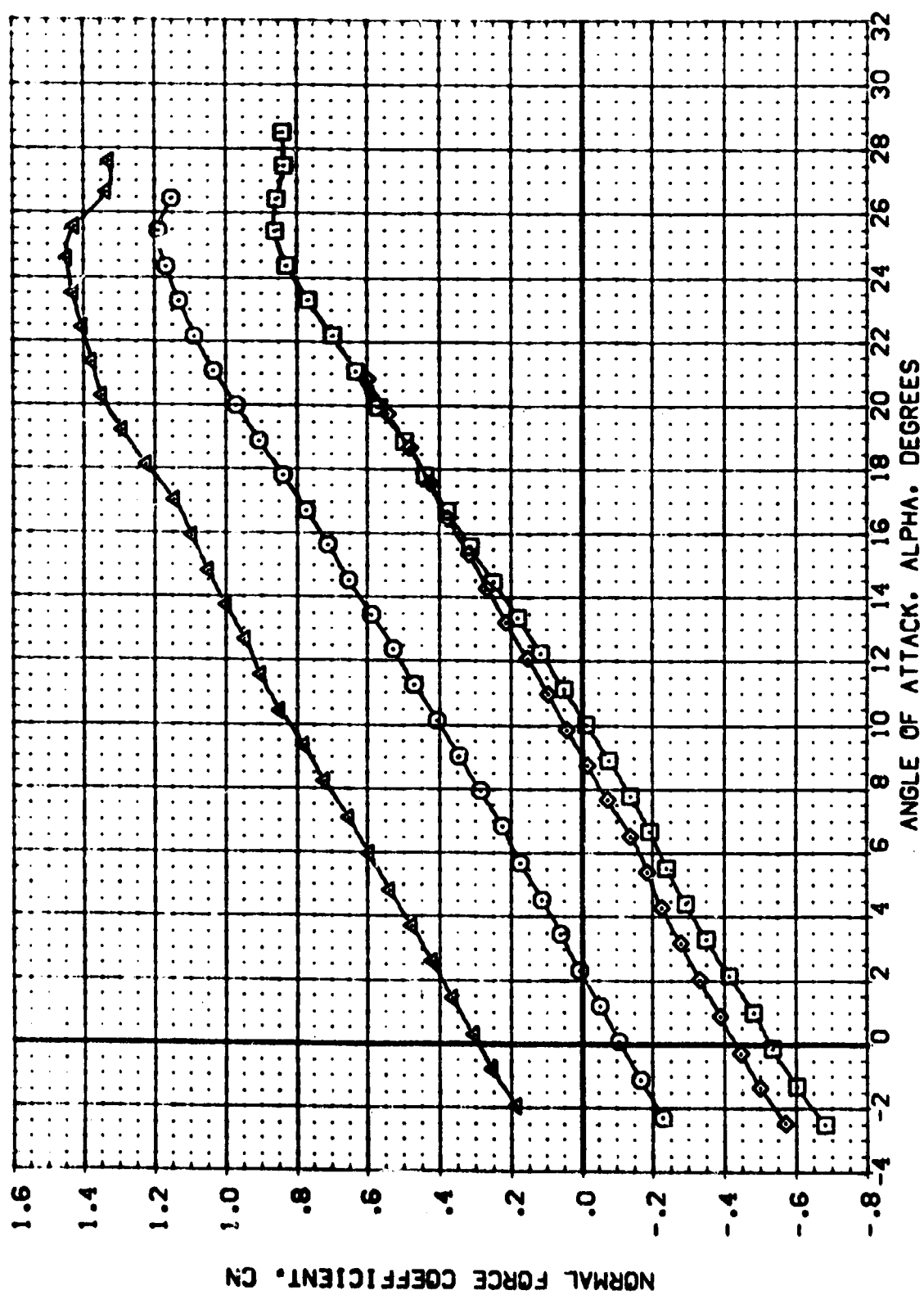
REFERENCE INFORMATION:
 REF: 16000
 LIFT: 14.250
 DRAG: 13.750
 SCALE: 6.0000
 SCALE: 10.000



REYNOLDS NUMBER EFFECT - ELEVON = 15 DEGREES

(A)MACH = 1.21

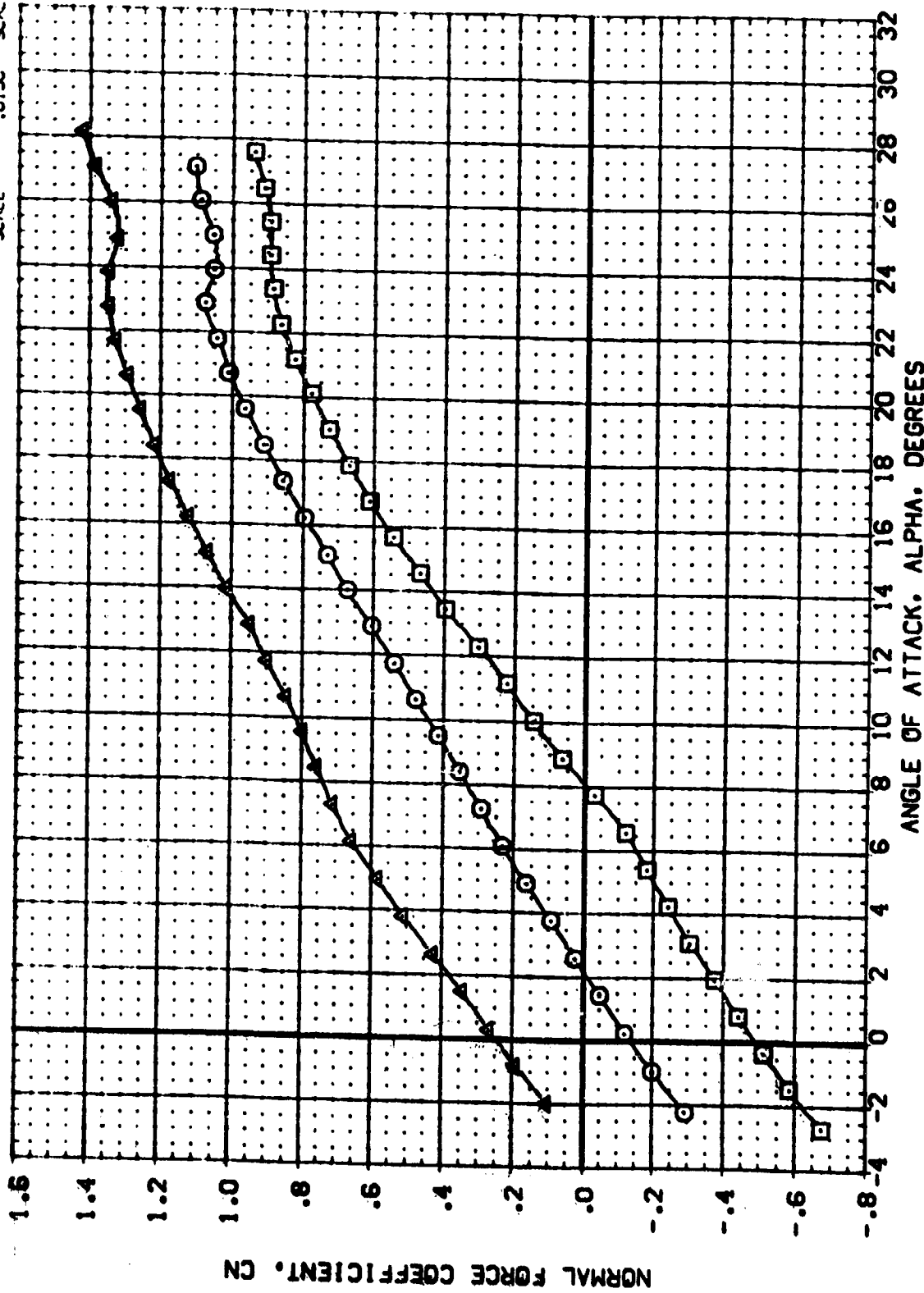
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		R.O.F.R		BFLAP		RVL		REFERENCE INFORMATION	
COR01	○	3A68 822	CT V4 FS V1	E23 V7 R5	000	24.920	-14.250	7.000	SREF	6.523	SCALE	SCF	SCF
COR02	×	3A68 822	CT V4 FS V1	E23 V7 R5	-40.000	24.920	-14.250	7.000	LREF	7.122	SCALE	SCF	SCF
COR03		3A68 822	CT V4 FS V1	E23 V7 R5	-20.000	24.920	-14.250	7.100	SREF	14.000	SCALE	SCF	SCF
COR04		3A68 822	CT V4 FS V1	E23 V7 R5	15.000	24.920	-13.750	7.100	XREF	12.617	SCALE	SCF	SCF
									YREF	6.000	SCALE	SCF	SCF
									ZREF	6.000	SCALE	SCF	SCF



ELEVON EFFECTIVENESS
[A]MACH = .61

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [C000] [] 0468 822 C7 M4 F5 V111 E23 V7 R5
 [C000] [X] 0468 822 C7 M4 F5 V111 E23 V7 R5
 [C000] [X] DATA NOT AVAILABLE
 [C000] [X] 0468 822 C7 M4 F5 V111 E23 V7 R5

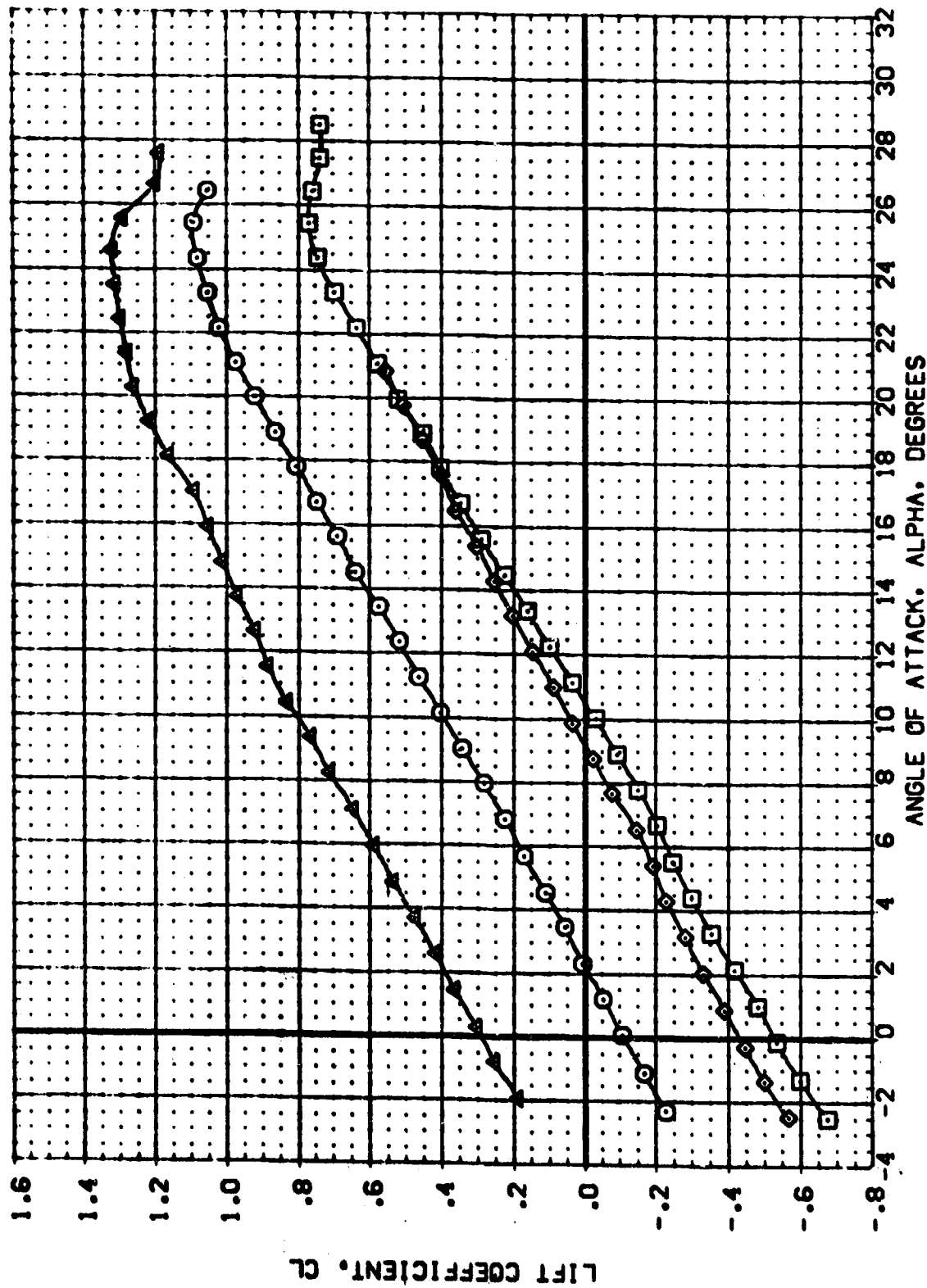
ELEVON REFLECTOR BLAP INV. REFERENCE INFORMATION
 ELEVON 000 24.920 -14.250 7.000 SREF 6253
 -40.000 24.920 -14.250 7.000 LREF 7.122
 -20.000 24.920 -14.250 7.100 BREF 14.250
 15.000 24.920 13.750 XREF 12.600
 ZREF 6.000
 SCALE 6.0150



ELEVON EFFECTIVENESS

(B)MACH = .91

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROLLER	REFLAP	BN/L	REFERENCE INFORMATION
001	0458 B22 C7 M4 FS V111 E23 V7 RS	0.000	24.970	-1.250	7.000	SREF 6553
002	0458 B22 C7 M4 FS V111 E23 V7 RS	-10.000	24.970	-1.250	7.000	LBREF 7.1222
003	0458 B22 C7 M4 FS V111 E23 V7 RS	-20.000	24.970	-1.250	7.100	BRREF 4.0507
004	0458 B22 C7 M4 FS V111 E23 V7 RS	-15.000	24.920	-3.750	7.100	YREF 12.617
						YREF 6.0000
						SCALE 6.0000
						SCALE 0.1500

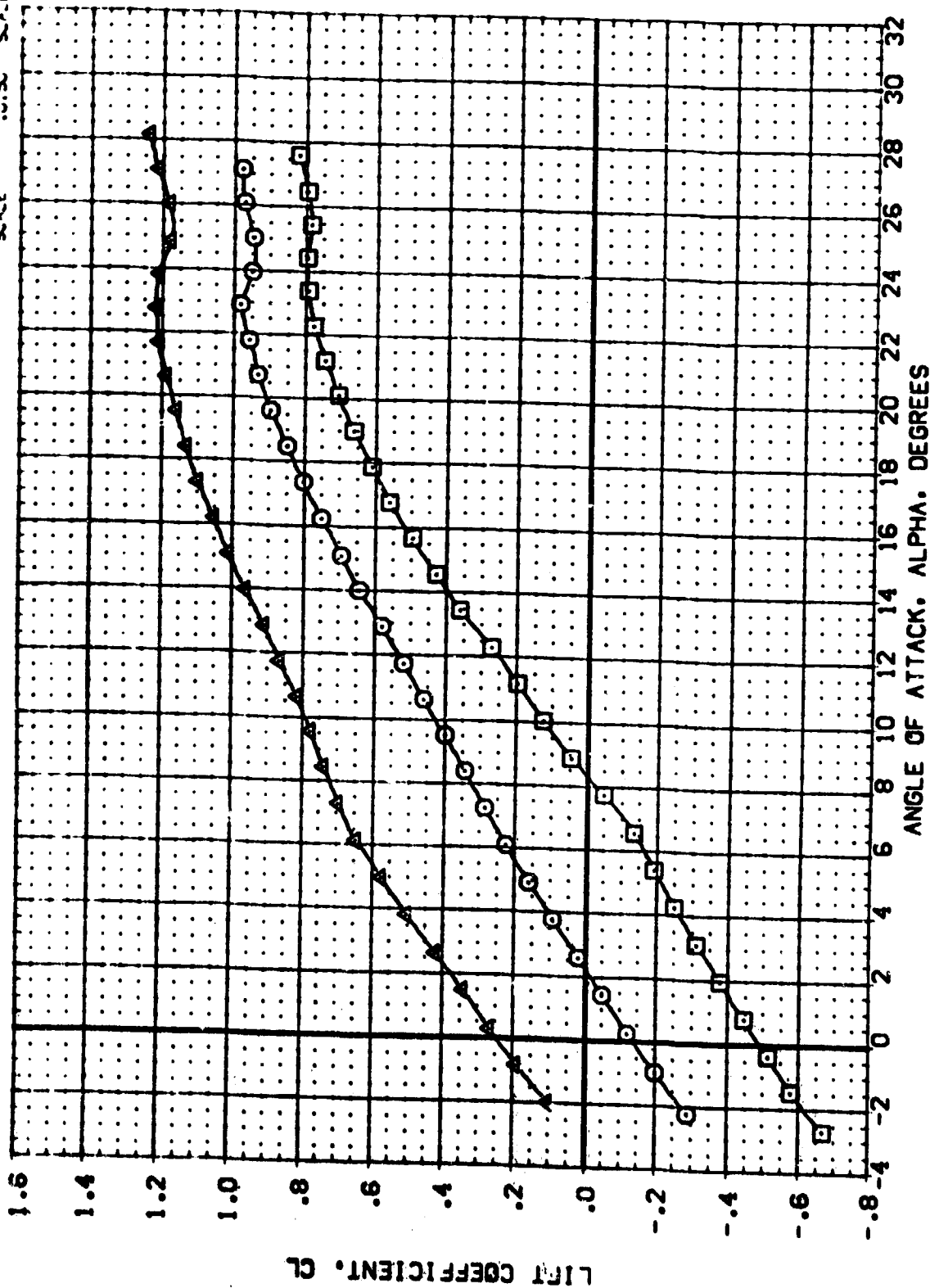


ELEVON EFFECTIVENESS

(A)MACH = .61

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 000008 CAS8 B22 C7 M4 FS V111 E23 V7 R5
 000008 CAS8 B22 C7 M4 FS V111 E23 V7 R5
 000008 DATA NOT AVAILABLE
 000008 CAS8 B22 C7 M4 FS V111 E23 V7 R5

ELEVON REFERENCE INFORMATION
 ELEVON 24.920 24.920 24.920 24.920
 REF 7.000 7.000 7.000 7.000
 SCALE 6.000 6.000 6.000 6.000



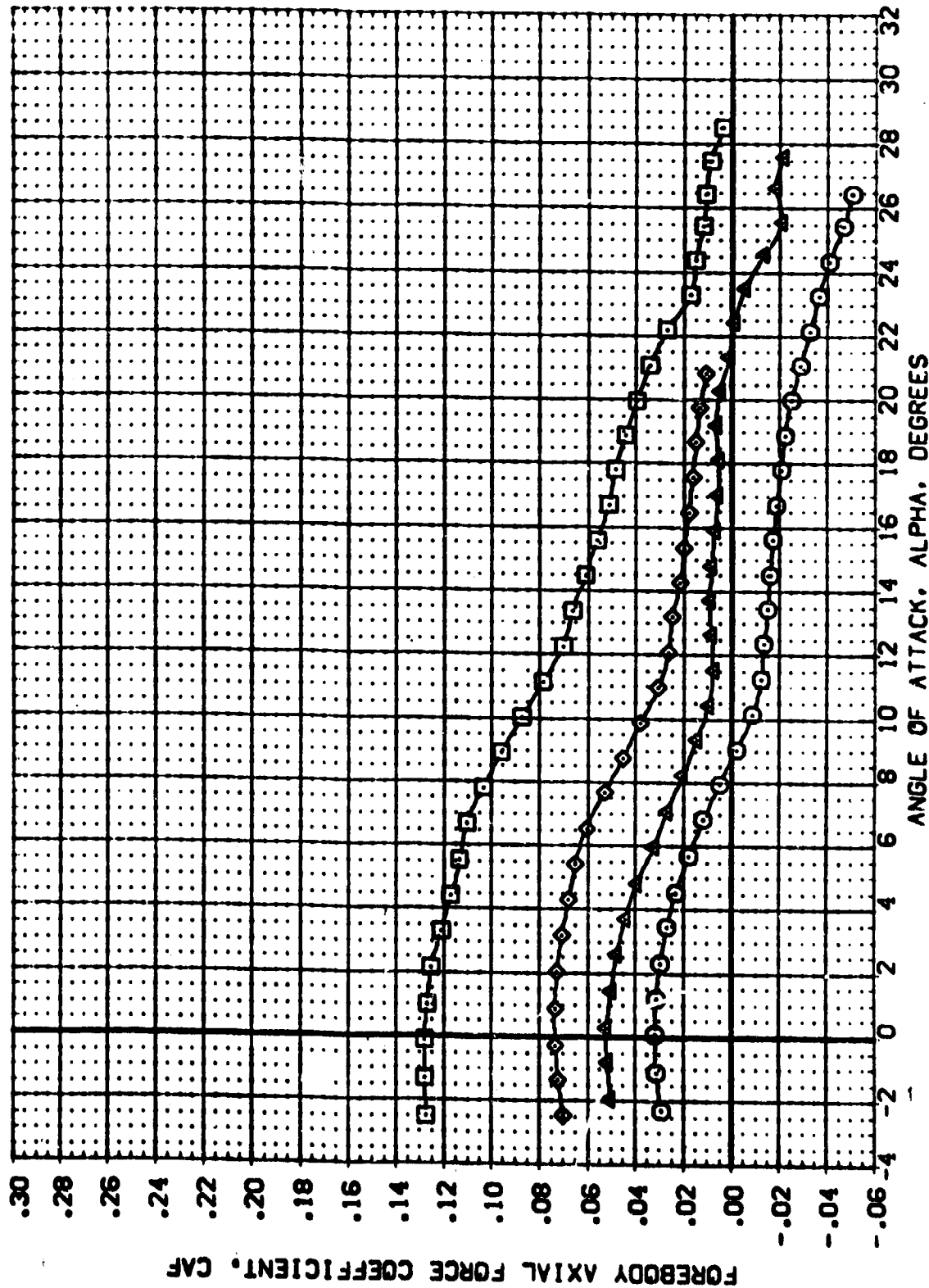
ELEVON EFFECTIVENESS

(B)MACH = .91

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C) 3468 B22 C7 M4 FS V111 E23 V7 RS
 (C) 3468 B22 C7 M4 FS V111 E23 V7 RS
 (C) 3468 B22 C7 M4 FS V111 E23 V7 RS
 (C) 3468 B22 C7 M4 FS V111 E23 V7 RS

ELEVON R/D/LR B/LAP R/VL
 .000 24.920 -14.250 7.000
 -40.000 24.920 -14.250 7.000
 -20.000 24.920 -14.250 7.000
 -15.000 24.920 -14.250 7.000

REFERENCE INFORMATION
 SREF 6.553
 LREF 7.722
 BREF 4.050
 VREF 2.617
 ZREF 6.000
 SCALE .0150

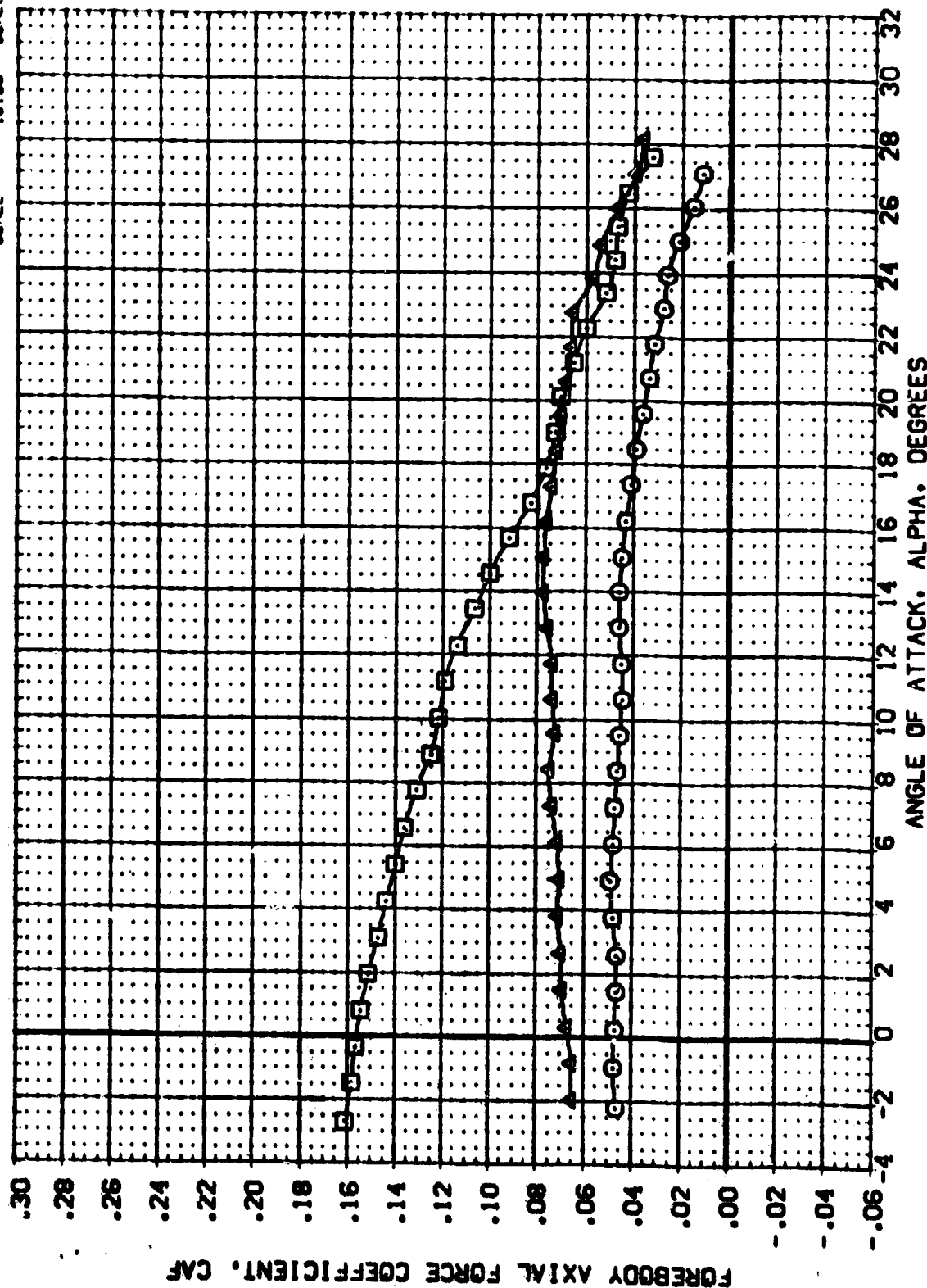


ELEVON EFFECTIVENESS

(Lambda) MACH = .51

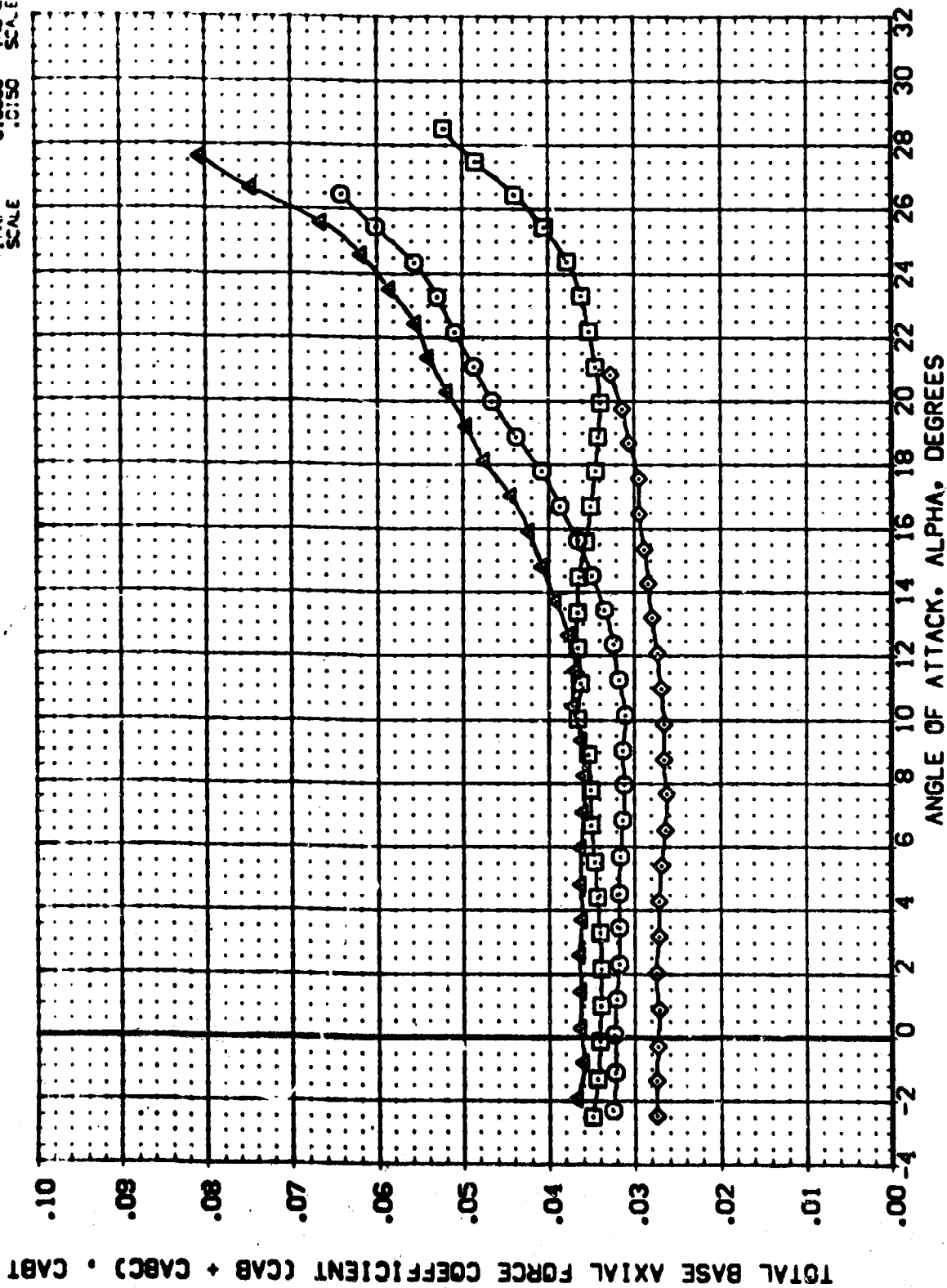
DATA SET: SYMBL CONFIGURATION DESCRIPTION
 Q 0468 B22 C7 M4 FS V111 E23 V7 RS
 X 0468 B22 C7 M4 FS V111 E23 V7 RS
 0468 B22 C7 M4 FS V111 E23 V7 RS

ELEVON RUDLER BFLAP RWL REFERENCE INFORMATION
 ELEVON 0.000 24.920 -14.250 7.000 SREF 6053
 -40.000 24.920 -14.250 7.000 JREF 7.1222
 -20.000 24.920 -14.250 7.000 BREF 14.0503
 15.000 24.920 -13.750 7.000 XMRP 12.6171
 0.000 24.920 -13.750 7.000 ZMRP 6.0000
 0.000 24.920 -13.750 7.000 SCALE 10.150
 0.000 24.920 -13.750 7.000 SCALE 10.150



ELEVON EFFECTIVENESS

(B)MACH = .9:

[illegible]

ELEVON EFFECTIVENESS

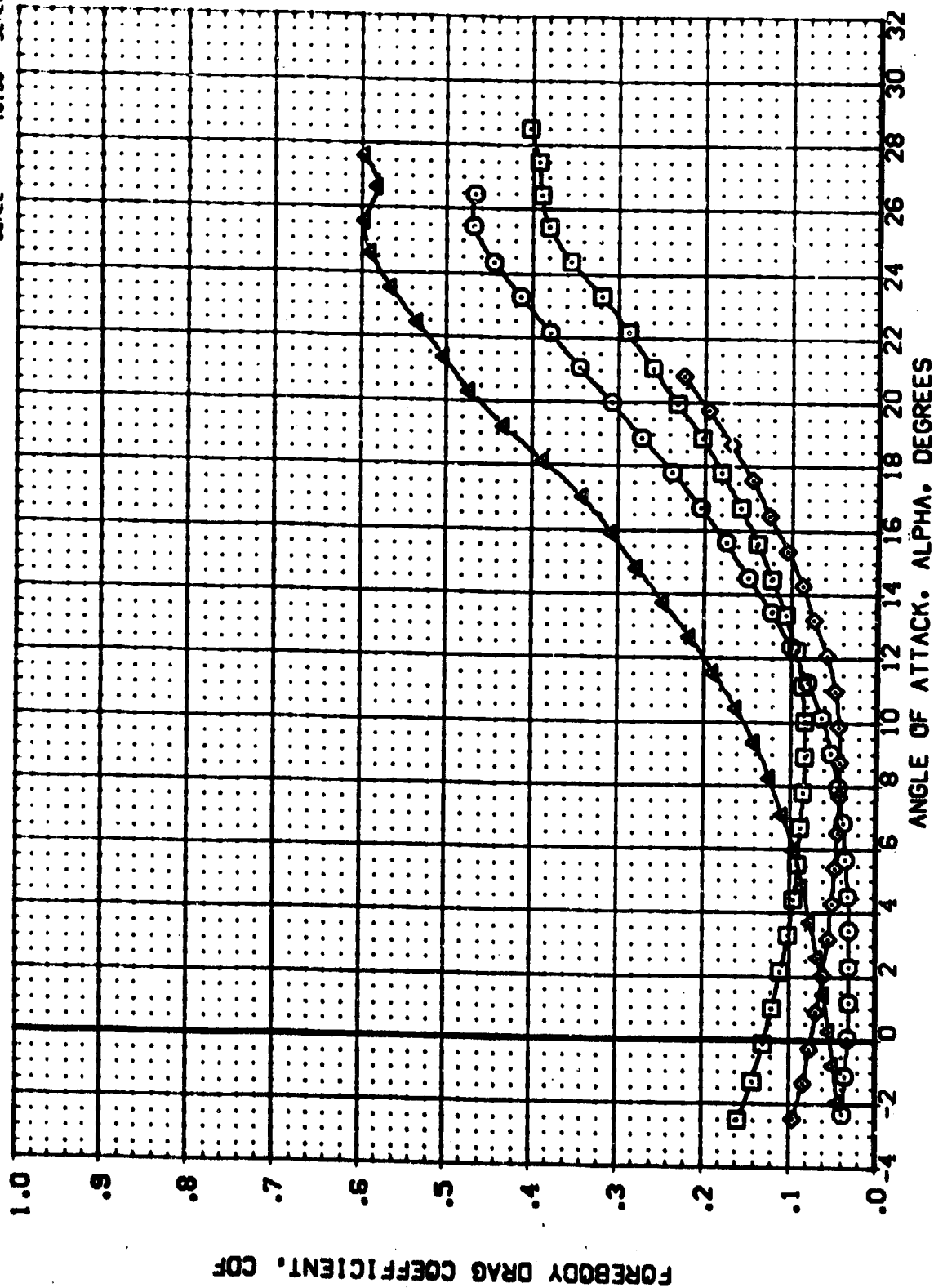
$$[A]_{MACH} = .6!$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [C0001] OAG8 B22 C7 M4 FS V111 E23 V7 R5
 [C0002] OAG8 B22 C7 M4 FS V111 E23 V7 R5
 [C0003] OAG8 B22 C7 M4 FS V111 E23 V7 R5
 [C0004] OAG8 B22 C7 M4 FS V111 E23 V7 R5

ELEVON RUFLR BFLAP RVVL
 -0.000 24.920 -14.250 7.000
 -40.000 24.920 -14.250 7.000
 -20.000 24.920 -14.250 7.100
 15.000 24.920 13.750 7.100

REFERENCE INFORMATION
 SREF 6053
 LREF 7.1272
 BREF 14.0502
 XMRP 12.6171
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0150

SCALES
 X-C-S
 Y-C-S
 Z-C-S
 X-C-S
 Y-C-S
 Z-C-S

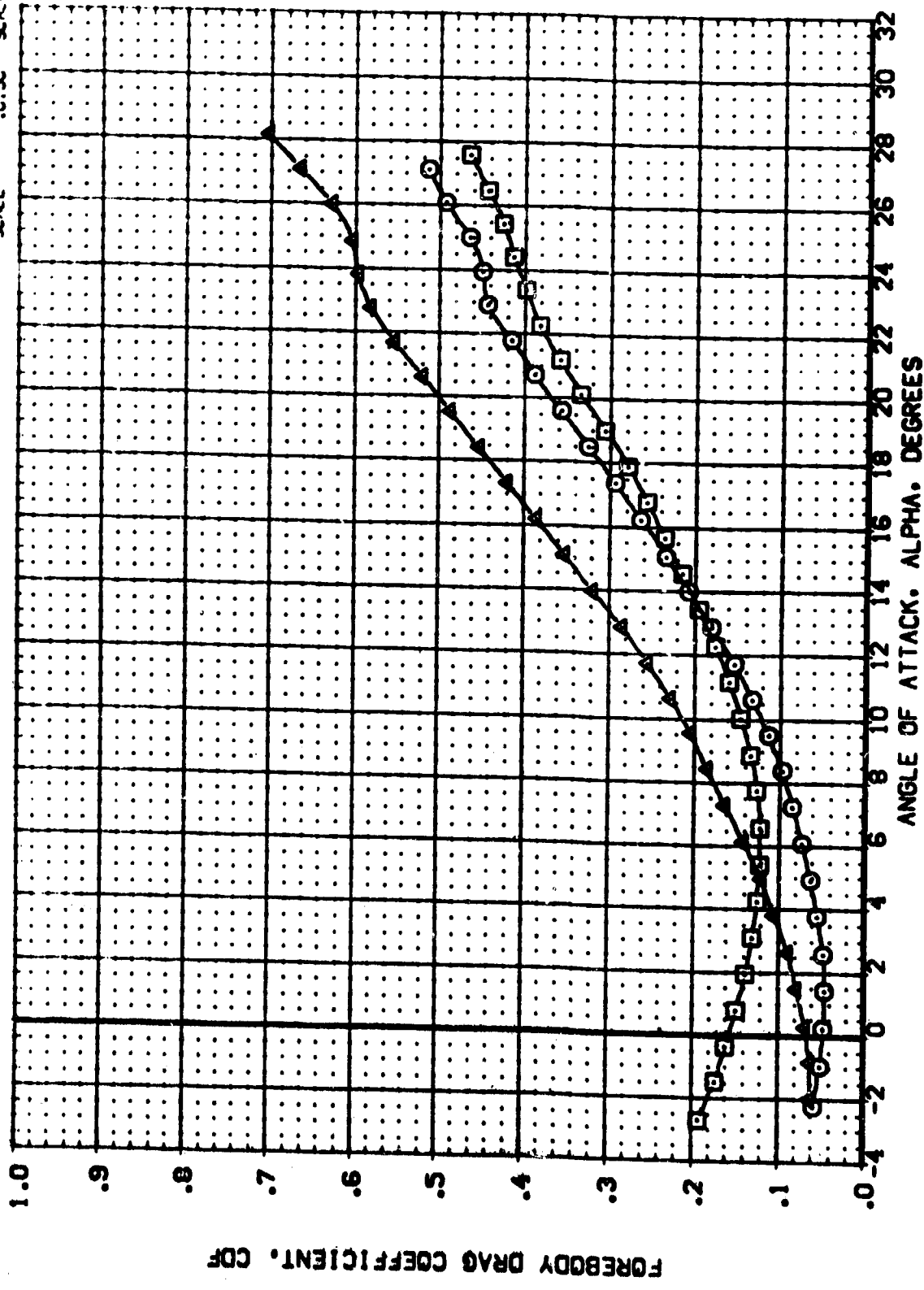


ELEVON EFFECTIVENESS

(A)MACH = .61

DATA SET SYMBOL: 00001
 CONFIGURATION DESCRIPTION: 0450 B22 C7 M4 F5 V111 E23 V7 R5
 0450 B22 C7 M4 F5 V111 E23 V7 R5
 DATA NOT AVAILABLE
 0450 B22 C7 M4 F5 V111 E23 V7 R5

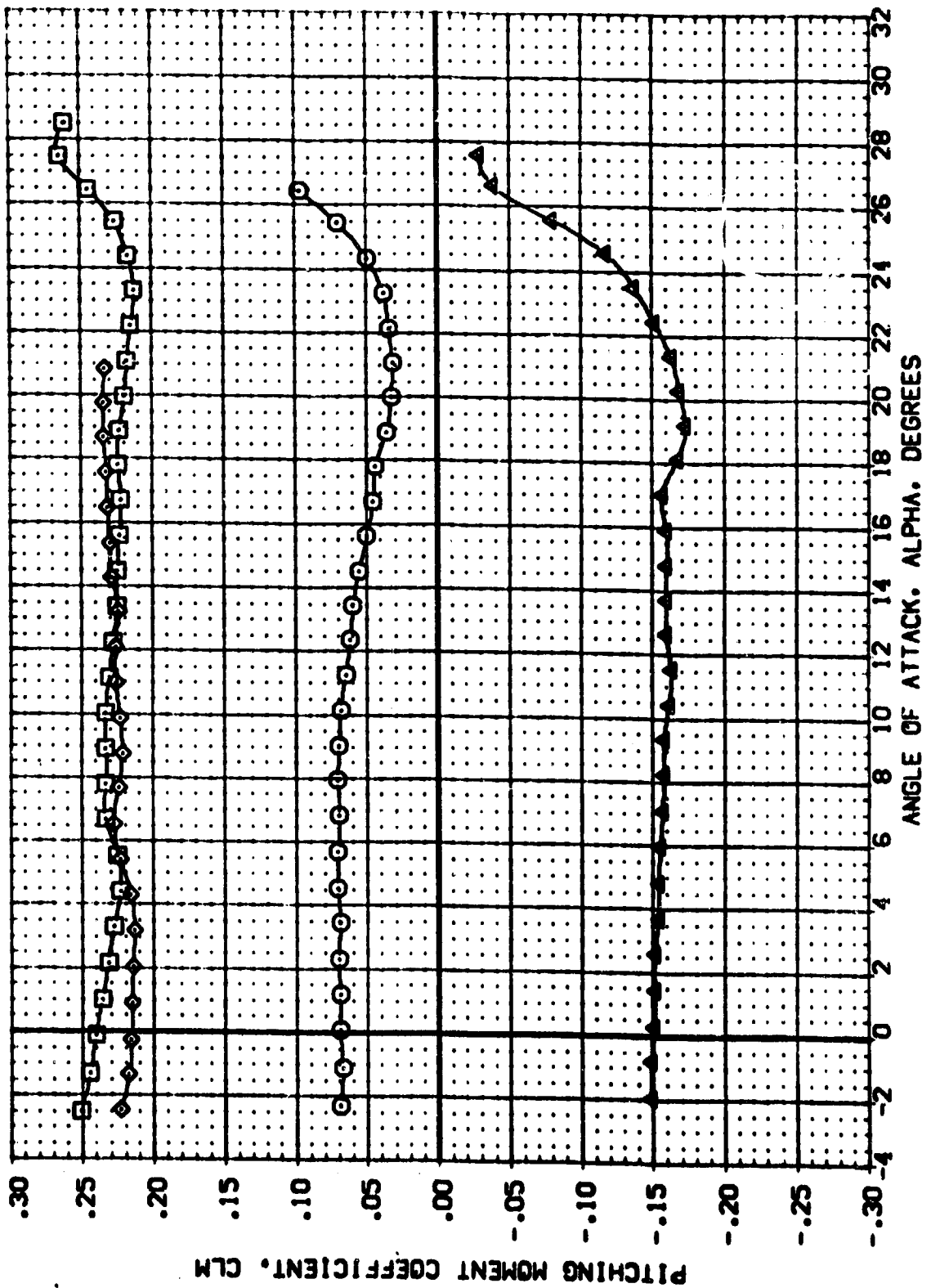
ELEVON RZFLR BLAP MVA
 24.920 -14.250 7.000
 24.920 -14.250 7.000
 24.920 -14.250 7.000
 24.920 -13.750 7.100
 15.000
 REFERENCE INFORMATION
 SREF 6.000
 LREF 7.122
 MREF 14.052
 XREF 12.617
 YREF 6.000
 ZREF 6.000
 SCALE 0.150
 SCALING
 SCALING
 SCALING
 SCALING
 SCALING
 SCALING



ELEVON EFFECTIVENESS

(B)MACH = .91

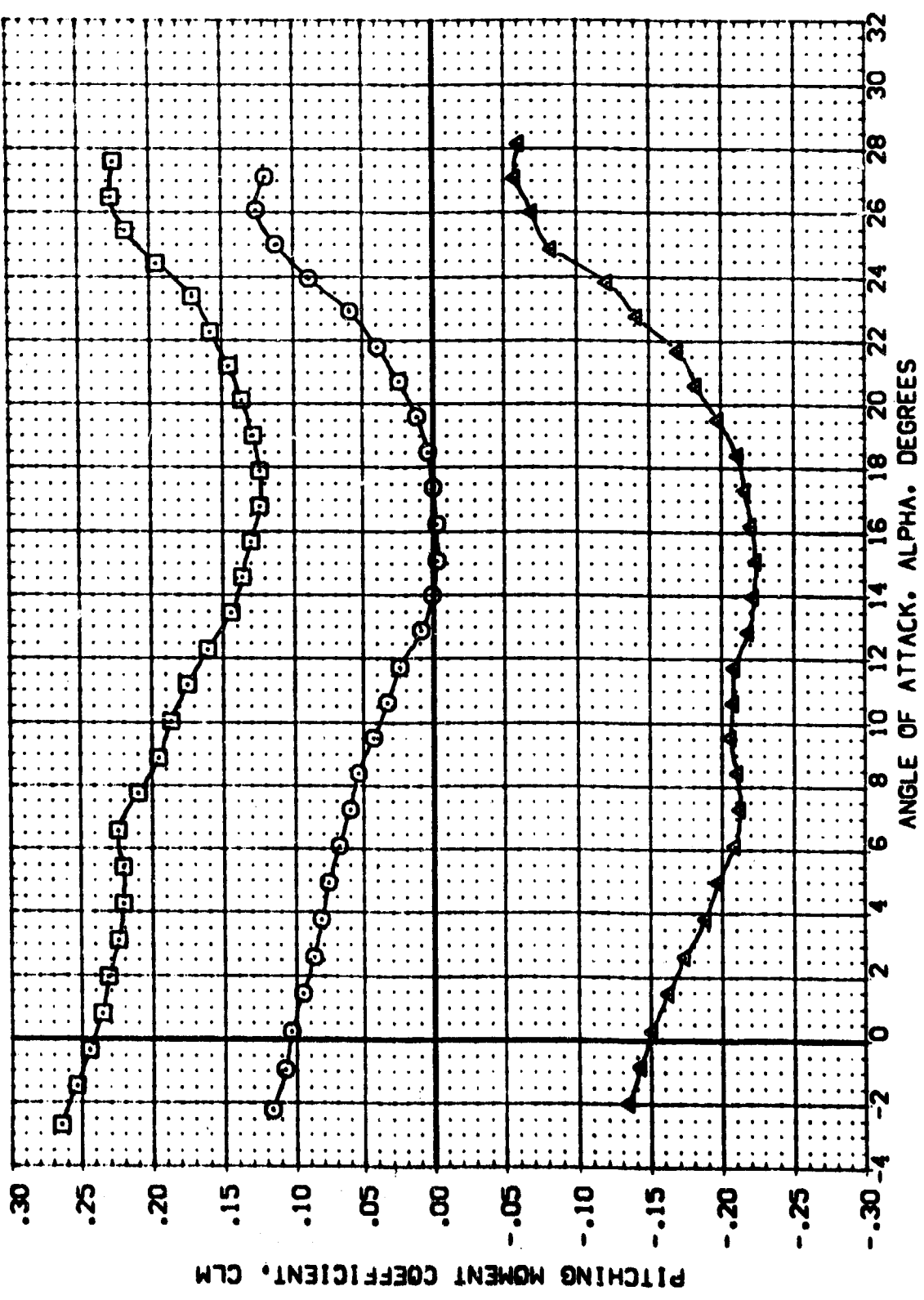
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	R.D.F. R	B.F. AP	R.V.L	REFERENCE INFORMATION
00000	0468 BZ2 07 M4 FS V11 E23 V7 R5	0.000	24.920	-14.250	7.000	SREF 6.253 S.C.F. S
00001	0468 BZ2 07 M4 FS V11 E23 V7 R5	-40.000	24.920	-14.250	7.000	LREF 7.122 S.C.F. S
00002	0468 BZ2 07 M4 FS V11 E23 V7 R5	-20.000	24.920	-14.250	7.000	BREF 14.000 S.C.F. S
00003	0468 BZ2 07 M4 FS V11 E23 V7 R5	15.000	24.920	-13.750	7.000	XREF 2.617 S.C.F. S
						YREF 0.000 S.C.F. S
						ZREF 6.000 S.C.F. S
						SCALE 0.0150



ELEVON EFFECTIVENESS

(A)MACH = .61

DATA SET: 5000	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
DATA 001 07 M4 FS V111 E23 V7 R5		SREF 6.000
DATA 002 07 M4 FS V111 E23 V7 R5		LINEF 7.122
DATA 003 07 M4 FS V111 E23 V7 R5		BRF 14.057
DATA 004 07 M4 FS V111 E23 V7 R5		YREF 12.617
DATA 005 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 006 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 007 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 008 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 009 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 010 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 011 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 012 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 013 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 014 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 015 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 016 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 017 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 018 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 019 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 020 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 021 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 022 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 023 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 024 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 025 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 026 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 027 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 028 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 029 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 030 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 031 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 032 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 033 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 034 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 035 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 036 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 037 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 038 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 039 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 040 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 041 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 042 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 043 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 044 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 045 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 046 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 047 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 048 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 049 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 050 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 051 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 052 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 053 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 054 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 055 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 056 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 057 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 058 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 059 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 060 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 061 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 062 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 063 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 064 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 065 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 066 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 067 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 068 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 069 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 070 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 071 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 072 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 073 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 074 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 075 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 076 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 077 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 078 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 079 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 080 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 081 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 082 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 083 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 084 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 085 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 086 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 087 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 088 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 089 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 090 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 091 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 092 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 093 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 094 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 095 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 096 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 097 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 098 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 099 07 M4 FS V111 E23 V7 R5		YREF 6.000
DATA 100 07 M4 FS V111 E23 V7 R5		YREF 6.000



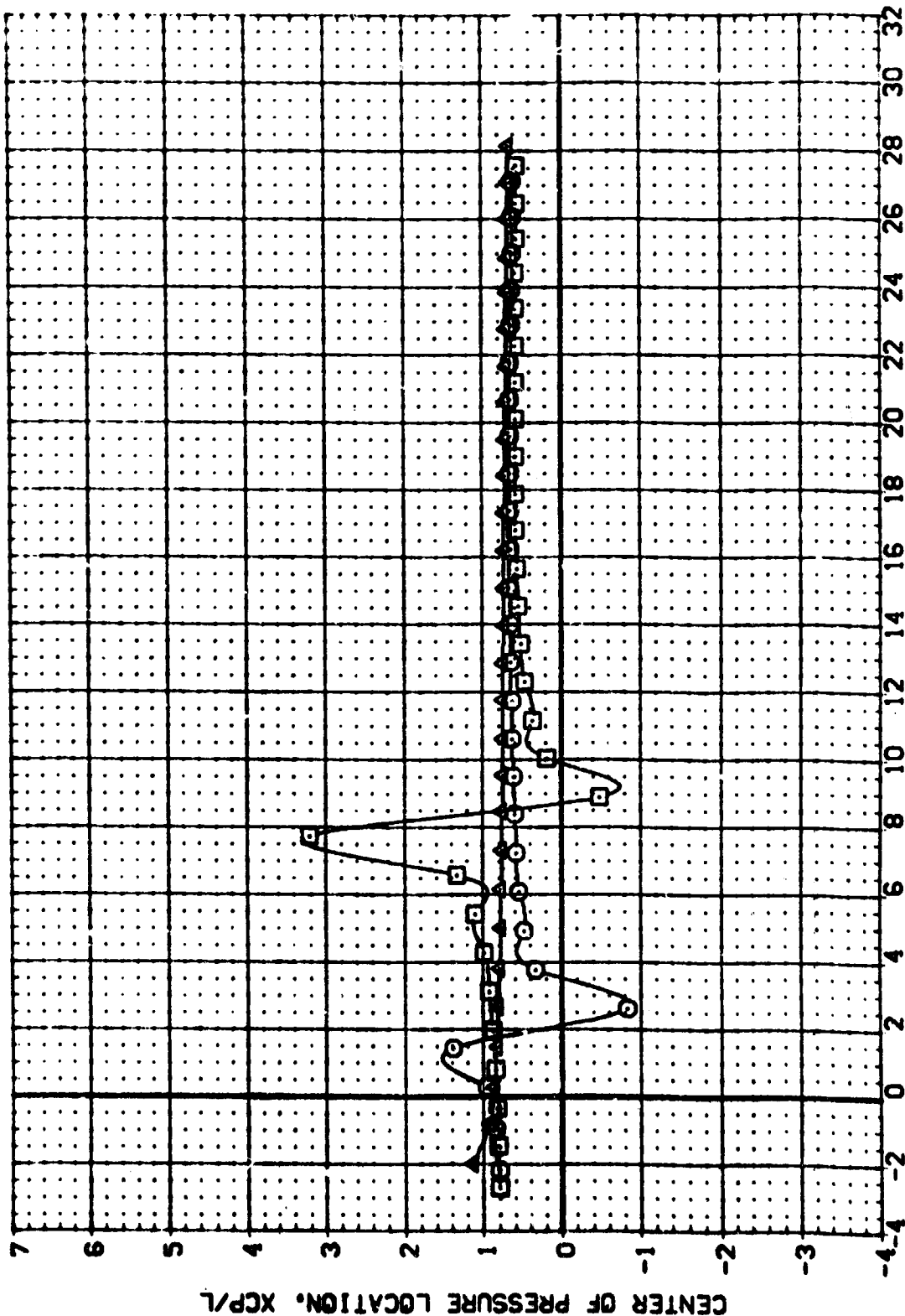
ELEVON EFFECTIVENESS

(B)MACH = .91

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [C0000] CAGB 822 C7 M4 FS V111 E23 V7 R5
 [C0008] CAGB 822 C7 M4 FS V111 E23 V7 R5
 [C0009] CAGB 822 C7 M4 FS V111 E23 V7 R5
 [C0010] CAGB 822 C7 M4 FS V111 E23 V7 R5

ELEVON RUDLER BELAP RVAL
 .000 24.920 -14.250 7.000
 -40.000 24.920 -14.250 7.000
 -20.000 24.920 -14.250 7.000
 15.000 24.920 -14.250 7.000

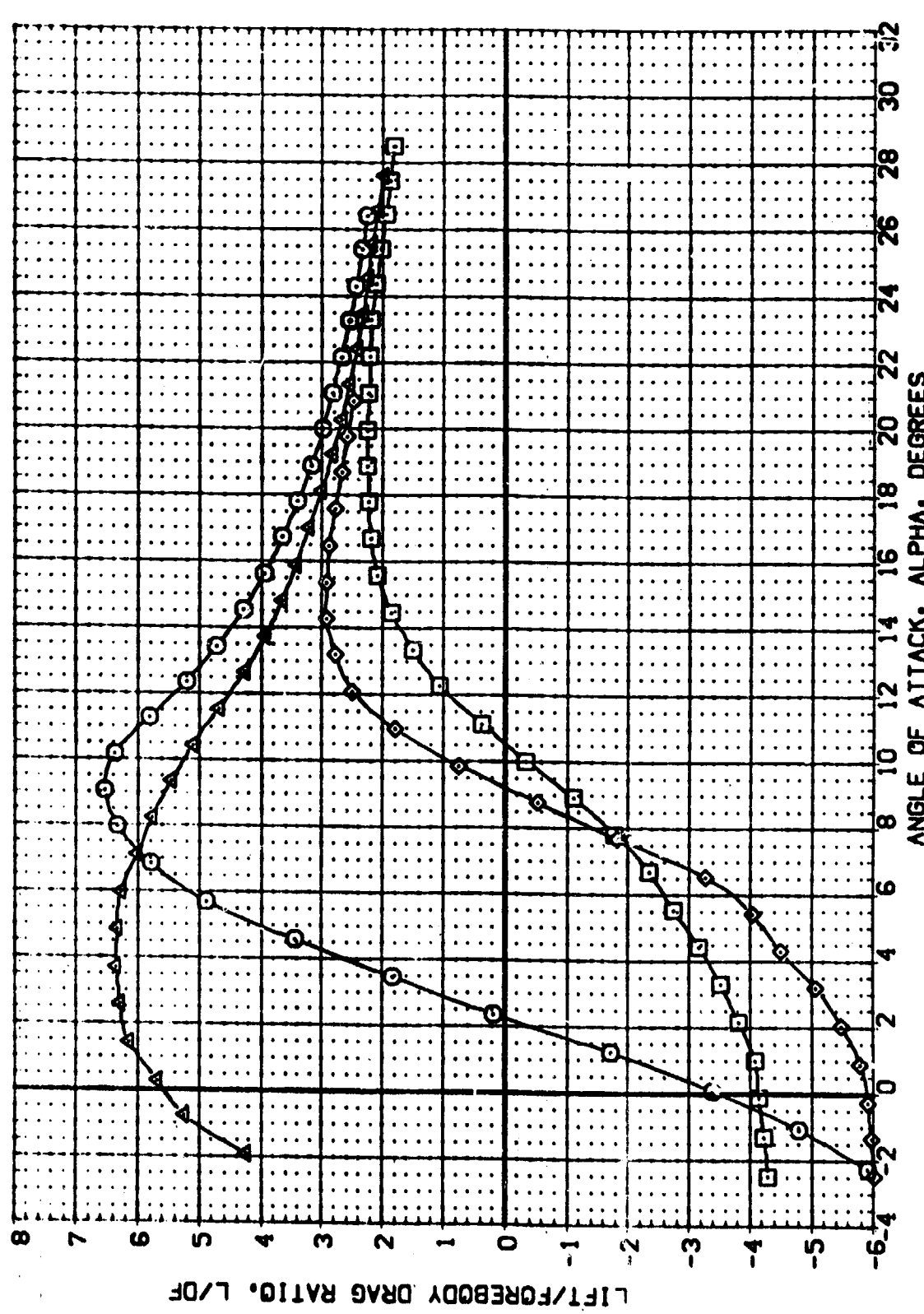
REFERENCE INFORMATION
 SREF 6.000
 LREF 7.000
 BREF 14.000
 YREF 12.000
 ZREF 6.000
 SCALE 0.50



ELEVON EFFECTIVENESS

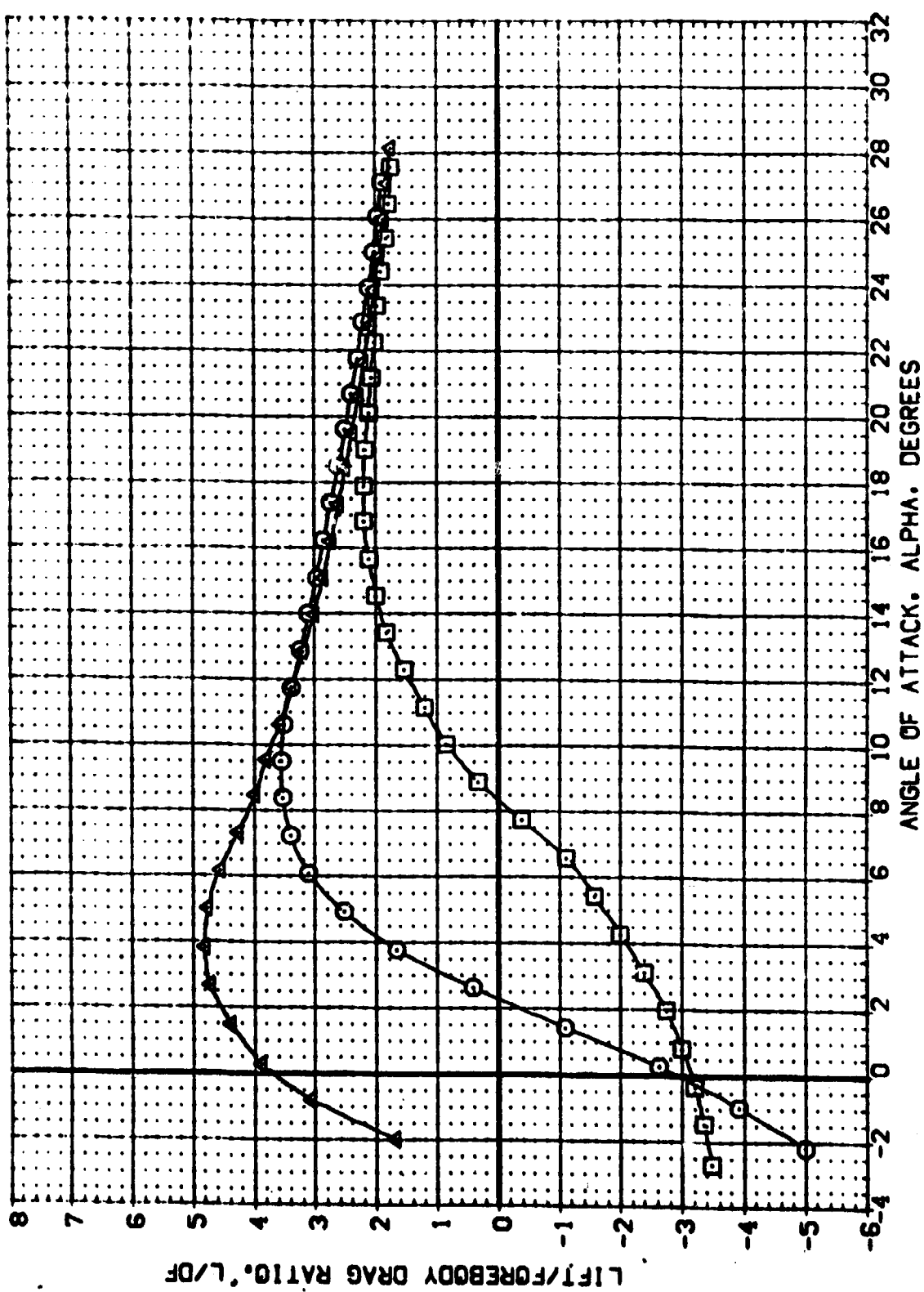
(B)MACH = .9:

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	RUOFLR	BF LAP	RAVL	REFERENCE INFORMATION
00000	□	0A68 B22 07 M4 FS V111 023 V7 R0	.000	24.920	-14.250	7.000	SREF
00000	○	0A68 B22 07 M4 FS V111 023 V7 R0	-40.000	24.920	-14.250	7.000	LOFF
00000	△	0A68 B22 07 M4 FS V111 023 V7 R0	-20.000	24.920	-14.250	7.100	BRFF
00000	×	0A68 B22 07 M4 FS V111 023 V7 R0	15.000	24.920	13.750	7.100	XMRP
							YMRP
							ZMRP
							SCALE
							6.0000
							0.0150



ELEVON EFFECTIVENESS
(A)MACH = .61

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROOT R	BLAP	PAVL	REFERENCE INFORMATION
0168 822	74 FS V111 E23 V7 RS	000	24.920	-14.250	7.000	5053
0168 822	74 FS V111 E23 V7 RS	-40.000	24.920	-14.250	7.000	7.000
0168 822	74 FS V111 E23 V7 RS	-20.000	24.920	-14.250	7.000	12.000
0168 822	74 FS V111 E23 V7 RS	-15.000	24.920	-13.750	7.000	12.000
						6.000
						SCALE

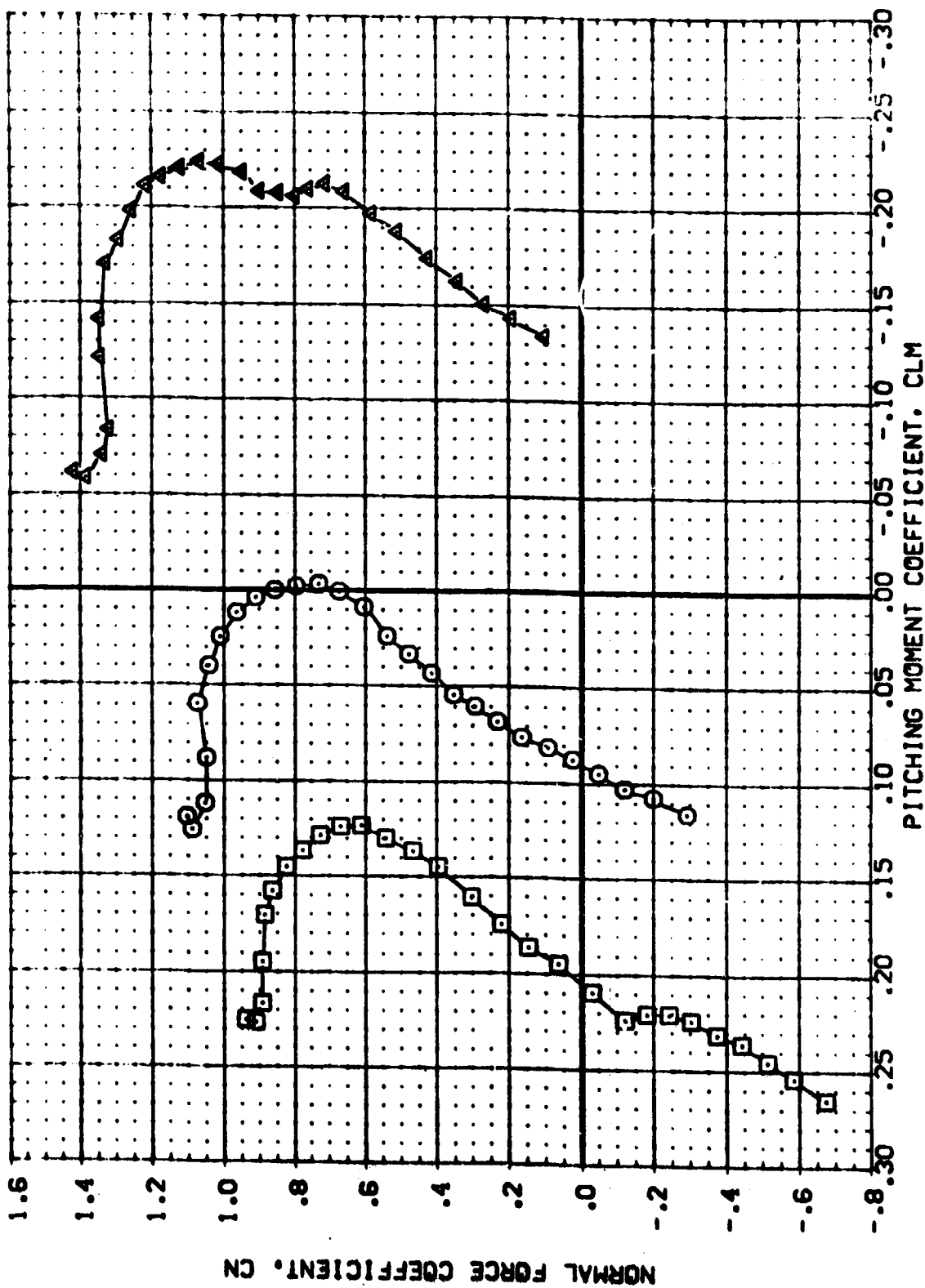


ELEVON EFFECTIVENESS

(B)MACH = .9:

DATA SET: SYMBO. CONFIGURATION DESCRIPTION REFERENCE INFORMATION

SYMBOL	DESCRIPTION	ELEVON	RJDFLR	BF LAP	RVL	REF	SCALE
3468 B02	E7 M4 FS VIII: E23 V7 R5	.000	24.920	-14.250	7.000	6.000	6.000
3468 B02	E7 M4 FS VIII: E23 V7 R5	-40.000	24.920	-14.250	7.000	7.000	7.000
3468 B02	E7 M4 FS VIII: E23 V7 R5	15.000	24.920	13.750	7.000	6.000	6.000

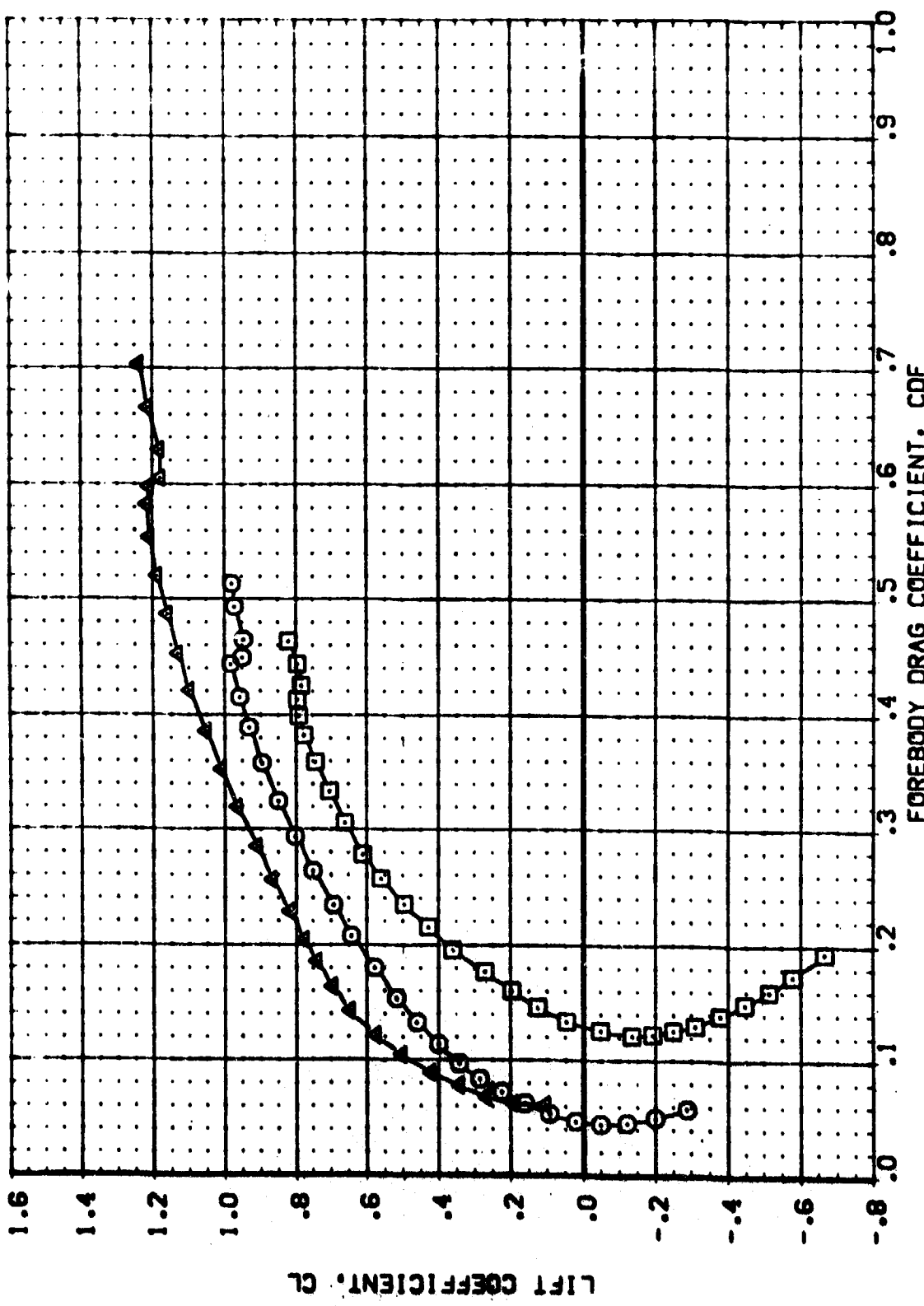


ELEVON EFFECTIVENESS

(B)MACH = .91

DATA SET SYMBOL:
 C OAGB B22 27 M4 FS V111 E23 V7 R5
 X OAGB B22 27 M4 FS V111 E23 V7 R5
 DATA NOT AVAILABLE
 OAGB B22 27 M4 FS V111 E23 V7 R5

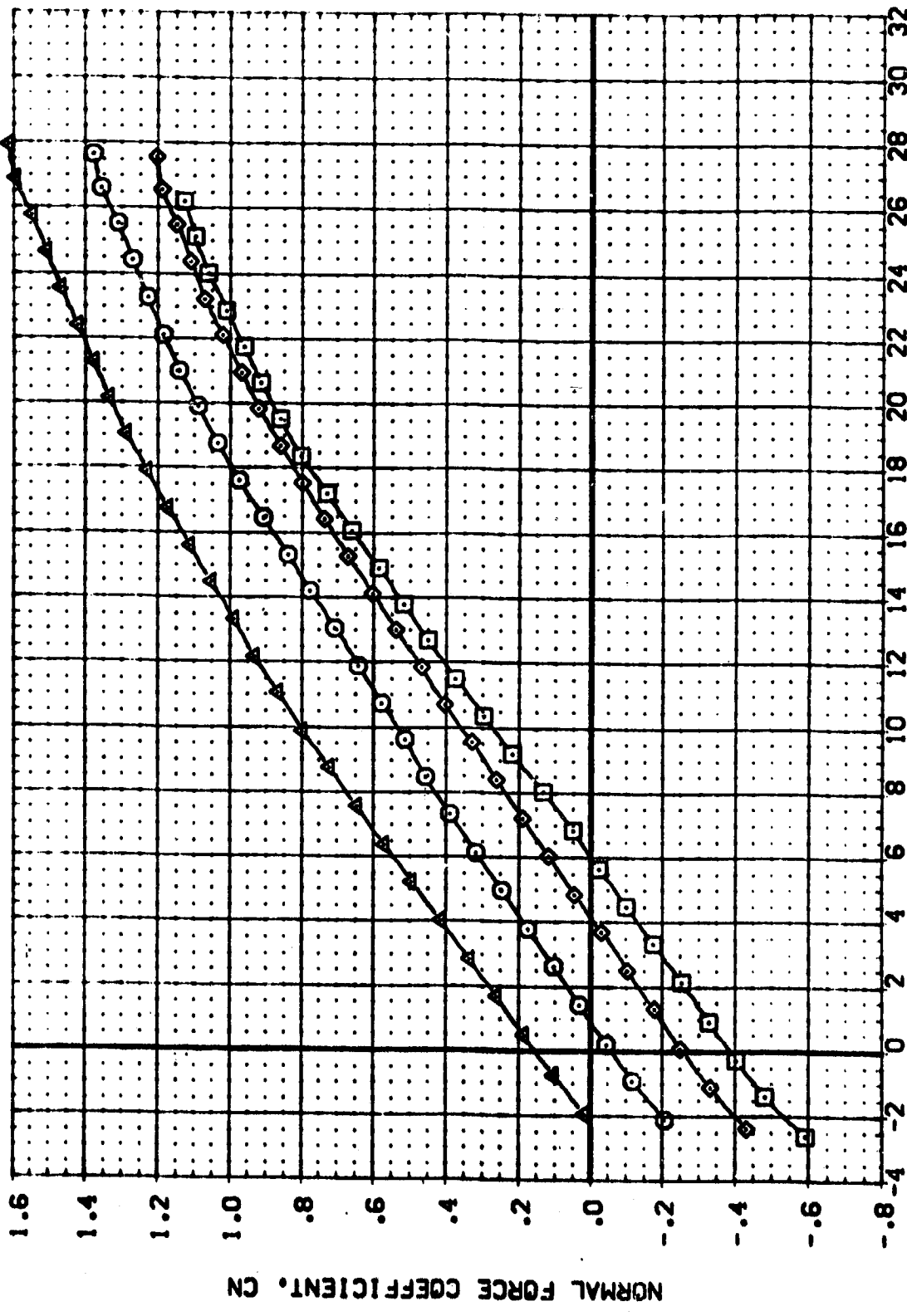
ELEVON R/O F/R BF LAP RV/L REFERENCE INFORMATION
 000 24.920 -14.250 7.000 5003
 -40.000 24.920 -14.250 7.000 5003
 -20.000 24.920 -14.250 7.000 5003
 15.000 24.920 -14.250 7.000 5003
 SCALE 6.000000



ELEVON EFFECTIVENESS

(B)MACH = .91

DATA SET: SYMB.	CONFIGURATION DESCRIPTION	ELEVON	R.O.F.R.	B.LAP	R.V.L.	REFERENCE INFORMATION
2A68 B22	E7 M4 FS V111 E23 V7 R2	0.00	54.920	-14.250	7.000	SREF 6.553
2A68 B22	E7 M4 FS V111 E23 V7 R2	-42.000	54.920	-14.250	7.000	LREF 7.1222
2A68 B22	E7 M4 FS V111 E23 V7 R2	-23.000	54.920	-14.250	7.000	BREF 14.000
2A68 B22	E7 M4 FS V111 E23 V7 R2	-15.000	54.920	-14.250	7.000	XREF 12.677
						YREF 6.0000
						ZREF 6.0000
						SCALE 6.0000

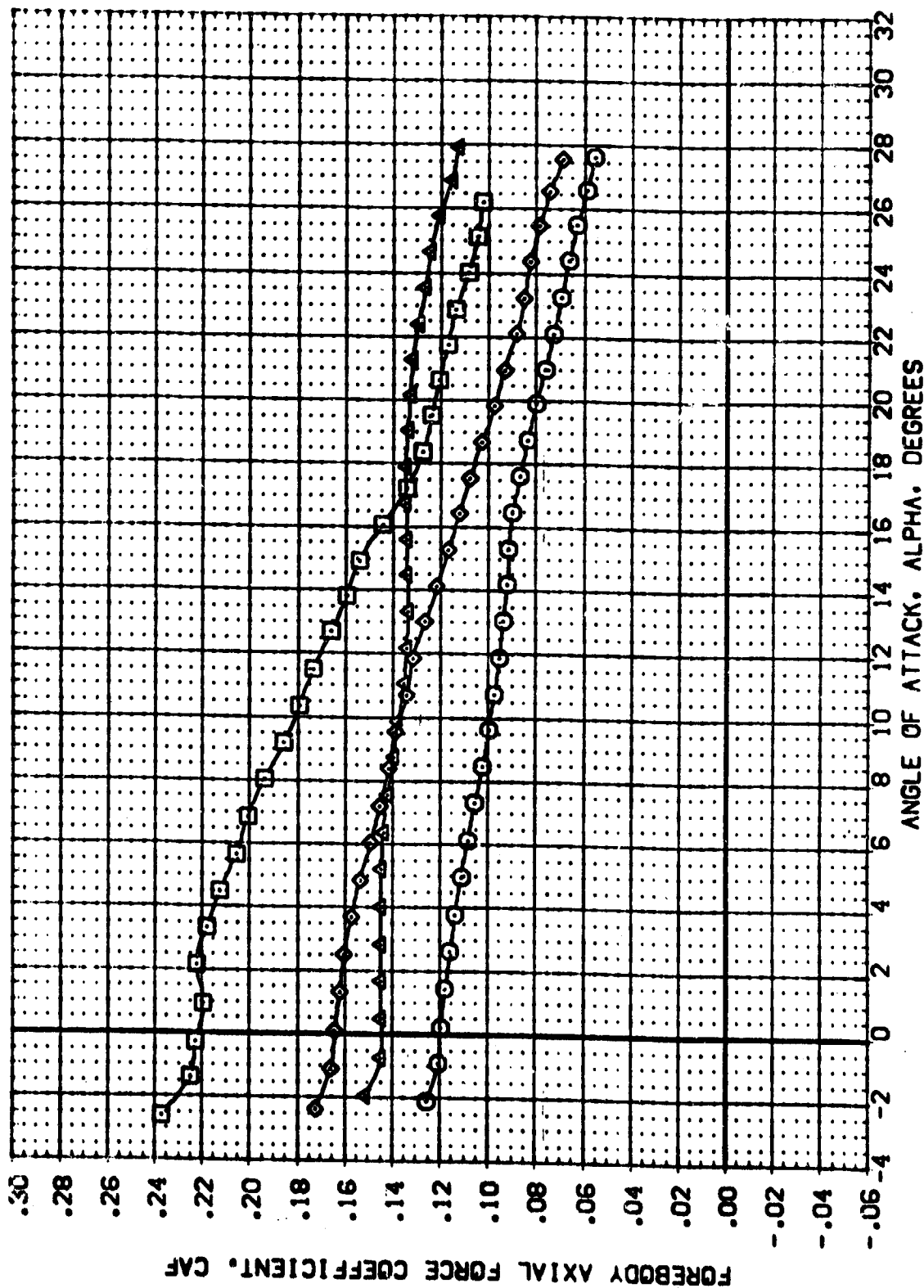


ANGLE OF ATTACK, ALPHA, DEGREES

ELEVON EFFECTIVENESS

(A)MACH = 1.2

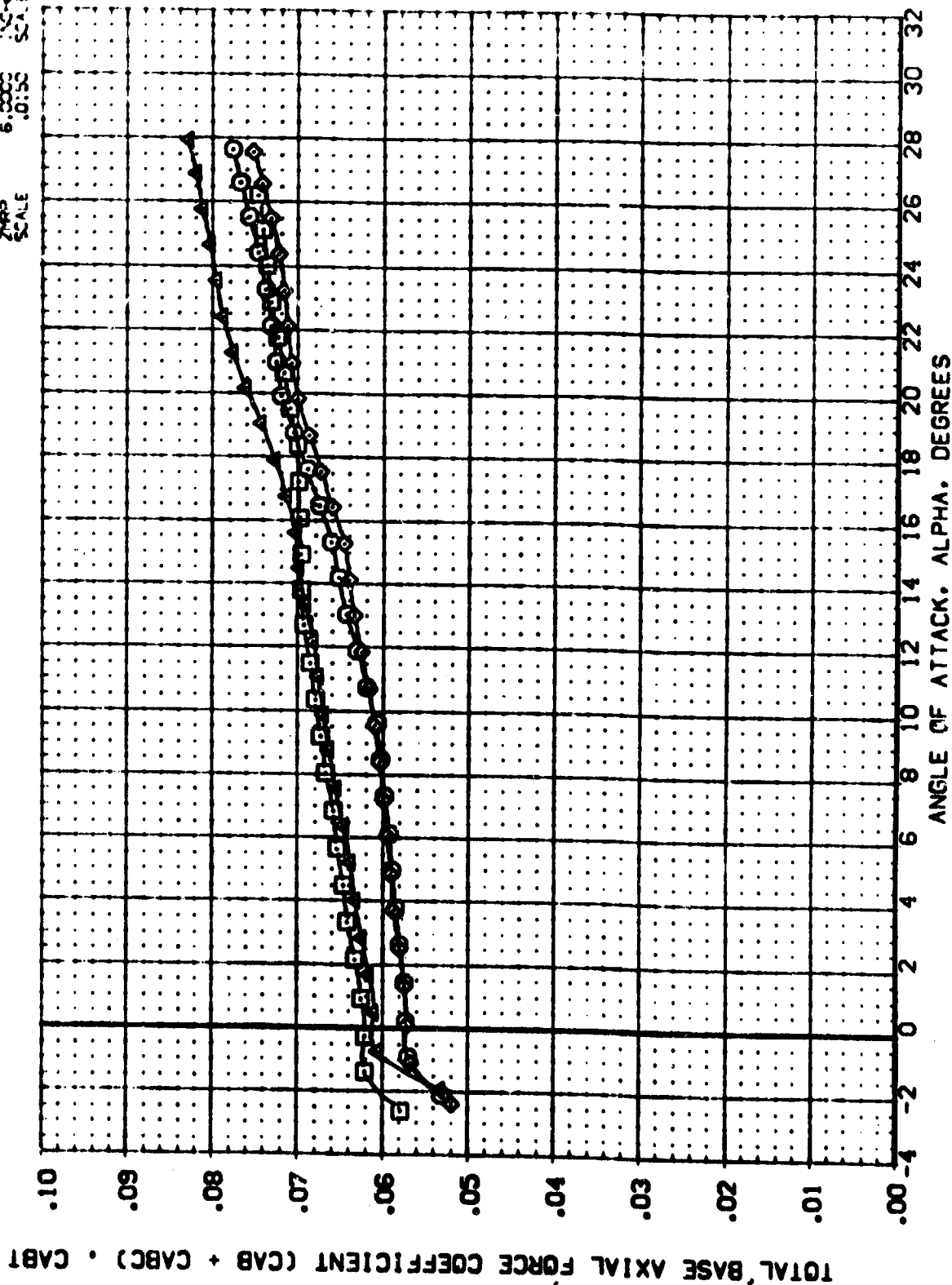
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		R.D.F.R.		B.F.L.A.P.		R.N.V.		REFERENCE INFORMATION	
00002	00002	CA68 B22	E7 M4 F5 V11	E23 V7 R5	.000	54.920	-14.250	7.000	SREF	6053	SCALE	6053	
00003	00003	CA68 B22	E7 M4 F5 V11	E23 V7 R5	-40.000	54.920	-14.250	7.000	LREF	7.1222	SCALE	7.1222	
00004	00004	CA68 B22	E7 M4 F5 V11	E23 V7 R5	-20.000	54.920	-14.250	7.000	BREF	4.0502	SCALE	4.0502	
00005	00005	CA68 B22	E7 M4 F5 V11	E23 V7 R5	15.000	54.920	13.750	7.100	XREF	2.6171	SCALE	2.6171	
									YREF	6.0000	SCALE	6.0000	
									ZREF	6.0000	SCALE	6.0000	



ELEVON EFFECTIVENESS

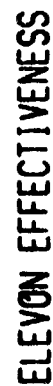
(A)MACH = 1.2

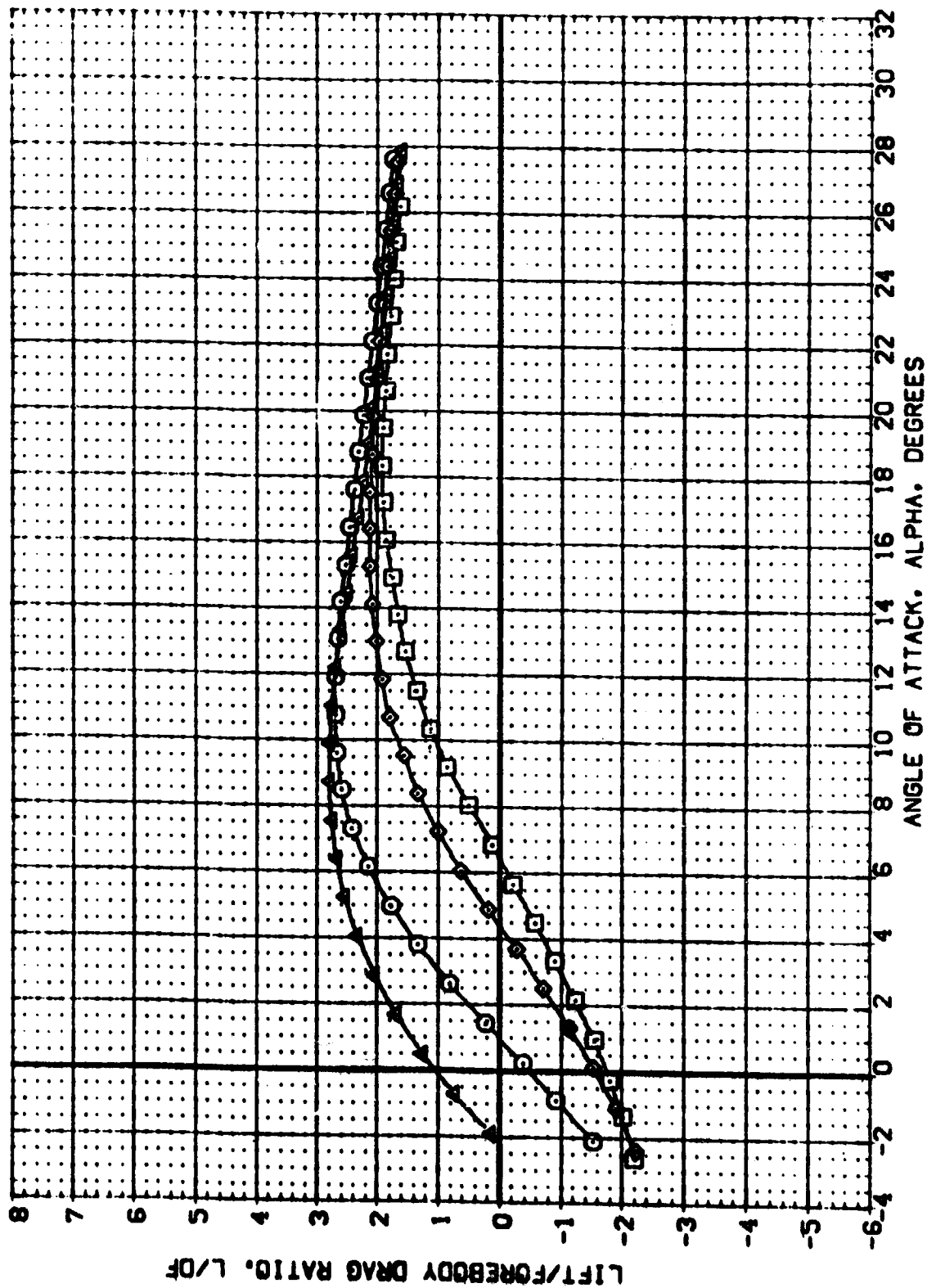
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	RUDLER	BLAP	RVL	REFERENCE	INFORMATION
000001	1	CA88 B22	E23 V1 R5	0.00	54.920	-14.250	7.000	SREF	6.053
000002	2	CA88 B22	E23 V1 R5	-40.000	54.920	-14.250	7.000	LRER	7.122
000003	3	CA88 B22	E23 V1 R5	-20.000	54.920	-14.250	7.000	BRER	14.000
000004	4	CA88 B22	E23 V1 R5	-15.000	54.920	-13.750	7.100	VRER	12.617
000005	5							VRER	6.000
000006	6							VRER	6.000
000007	7							VRER	6.050
000008	8							VRER	6.050



ELEVON EFFECTIVENESS

(ADM)MAC = 1.2:

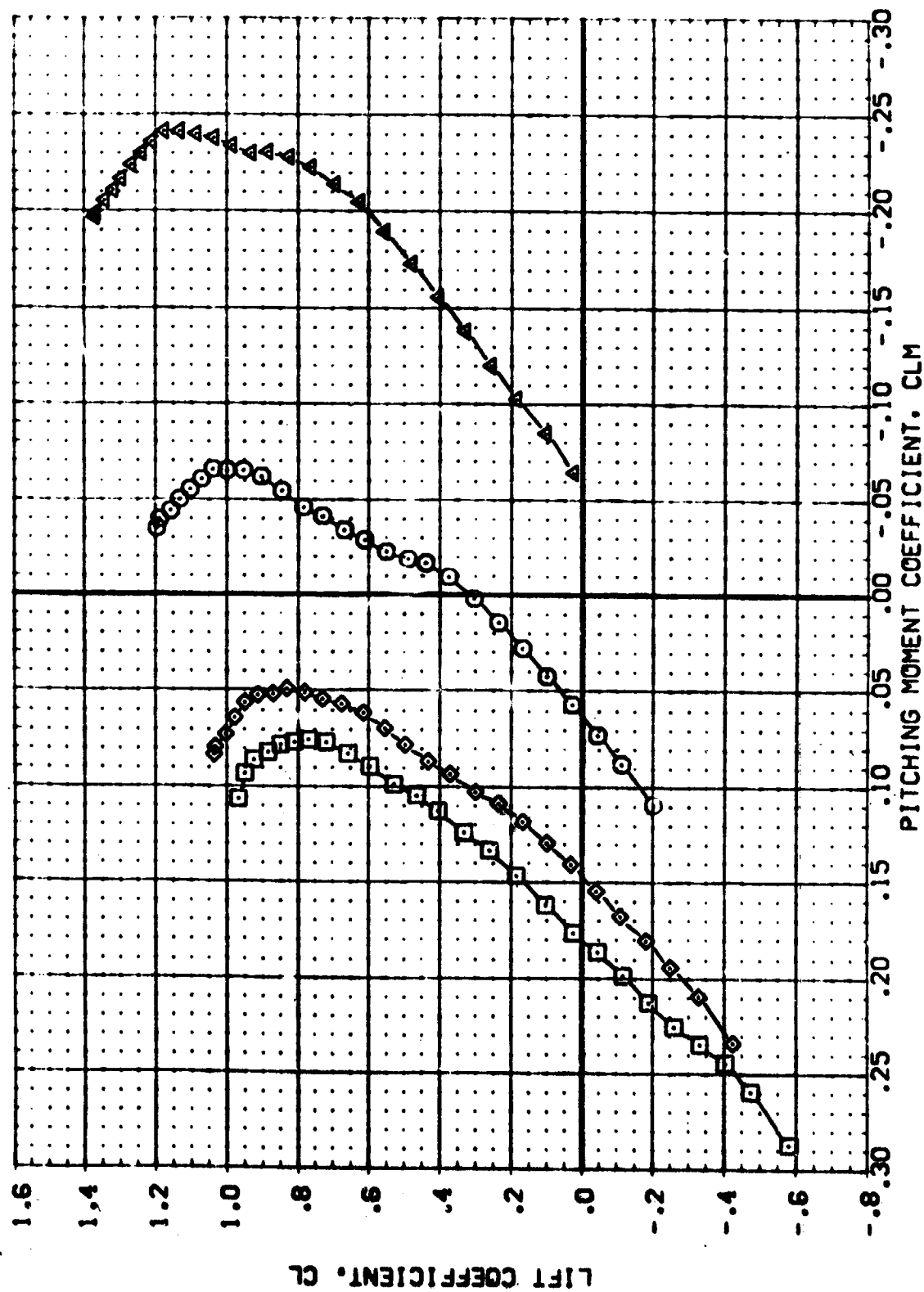
[illegible]
$$\{A\}MACH = 1.21$$

[illegible]

ELEVON EFFECTIVENESS

$$[A]_0^2 \times [A]_0^2 = 1.21$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	RLOF R	BF AD	ANUL	REFERENCE IN SUMATION
1000001	0468 822 07 04 FS V111 E23 V7 RS	000	54.920	-14.250	7.000	6.000
1000002	0468 822 07 04 FS V111 E23 V7 RS	-40.000	54.920	-14.250	7.000	7.000
1000003	0468 822 07 04 FS V111 E23 V7 RS	15.000	54.920	-13.750	7.100	6.000
1000004	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000005	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000006	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000007	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000008	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000009	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000010	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000011	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000012	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000013	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000014	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000015	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000016	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000017	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000018	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000019	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000020	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000021	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000022	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000023	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000024	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000025	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000026	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000027	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000028	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000029	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000030	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000031	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000032	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000033	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000034	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000035	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000036	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000037	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000038	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000039	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000040	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000041	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000042	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000043	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000044	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000045	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000046	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000047	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000048	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000049	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000050	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000051	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000052	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000053	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000054	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000055	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000056	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000057	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000058	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000059	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000060	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000061	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000062	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000063	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000064	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000065	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000066	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000067	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000068	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000069	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000070	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000071	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000072	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000073	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000074	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000075	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000076	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000077	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000078	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000079	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000080	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000081	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000082	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000083	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000084	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000085	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000086	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000087	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000088	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000089	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000090	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000091	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000092	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000093	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000094	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000095	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000096	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000097	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000098	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000099	0468 822 07 04 FS V111 E23 V7 RS					6.000
1000100	0468 822 07 04 FS V111 E23 V7 RS					6.000

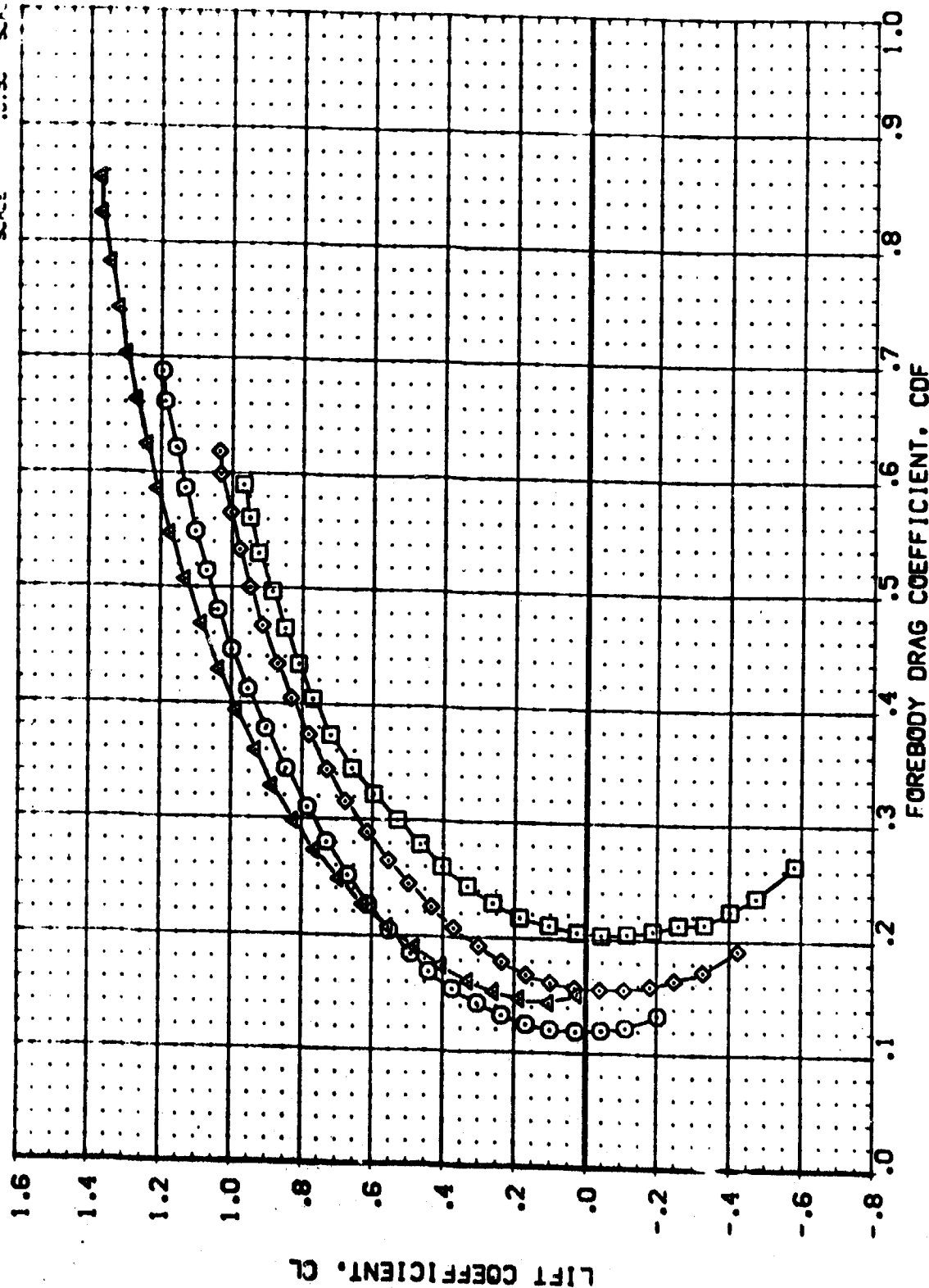


ELEVON EFFECTIVENESS

CADMACH = 1.2:

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 01000 B22 C7 M4 F5 V11 E23 V7 R5
 01000 B22 C7 M4 F5 V11 E23 V7 R5
 01000 B22 C7 M4 F5 V11 E23 V7 R5
 01000 B22 C7 M4 F5 V11 E23 V7 R5

ELEVON R/OFLR BFLAP RWL REFERENCE INFORMATION
 000 54.920 -14.250 7.000 REF 6.000
 -40.000 54.920 -14.250 BFL 7.000
 -20.000 54.920 -14.250 RWL 7.000
 15.000 54.920 -13.750 SCALE 6.000



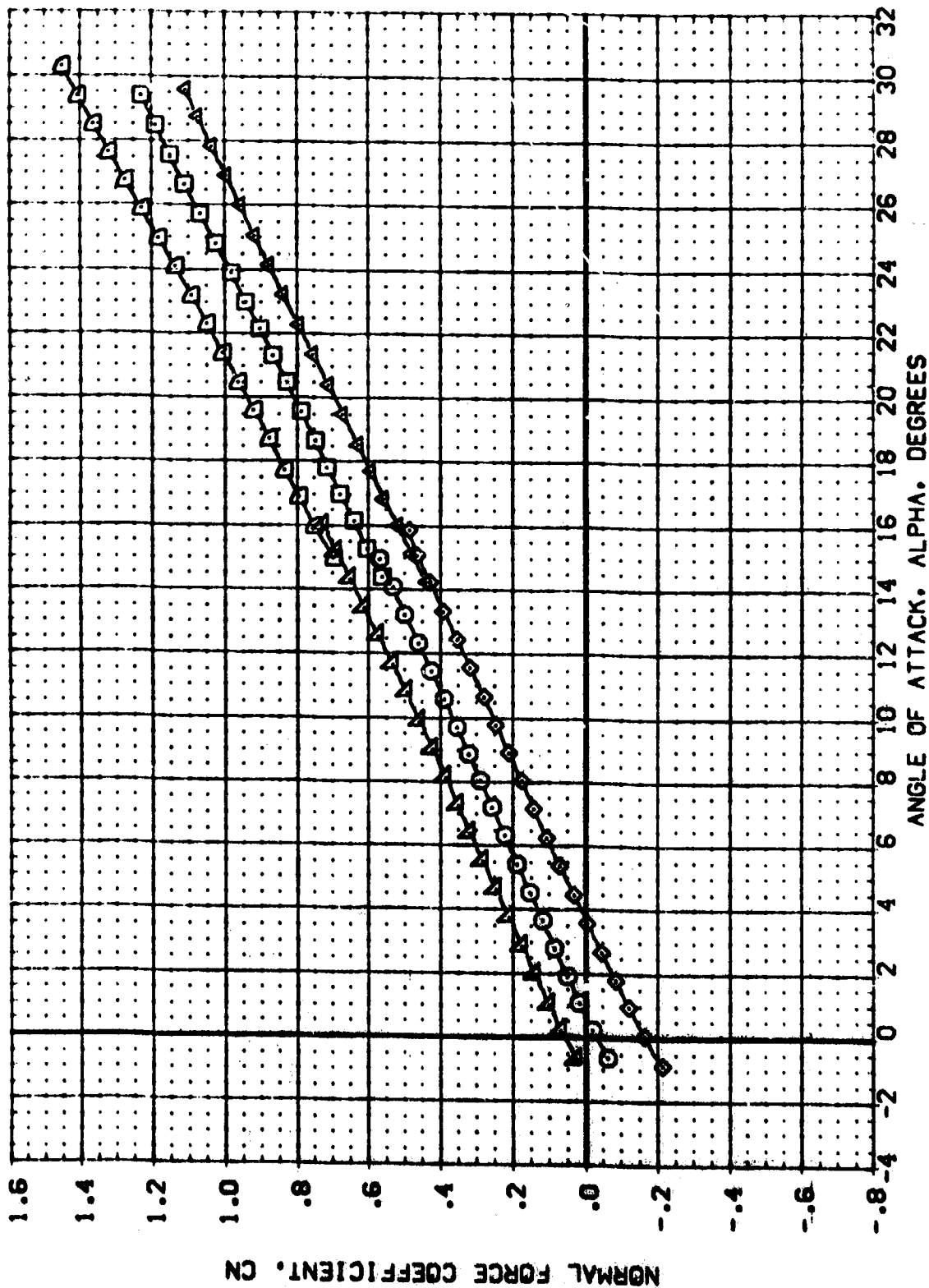
ELEVON EFFECTIVENESS

(A)MACH = 1.21

DATA SET 54800
 000003
 000004
 000005
 000006
 000007
 000008

CONFIGURATION DESCRIPTION
 0488 B22 07 M4 FS V111 E23 V7 R5
 0488 B22 07 M4 FS V111 E23 V7 R5
 0488 B22 07 M4 FS V111 E23 V7 R5
 0488 B22 07 M4 FS V111 E23 V7 R5
 0488 B22 07 M4 FS V111 E23 V7 R5

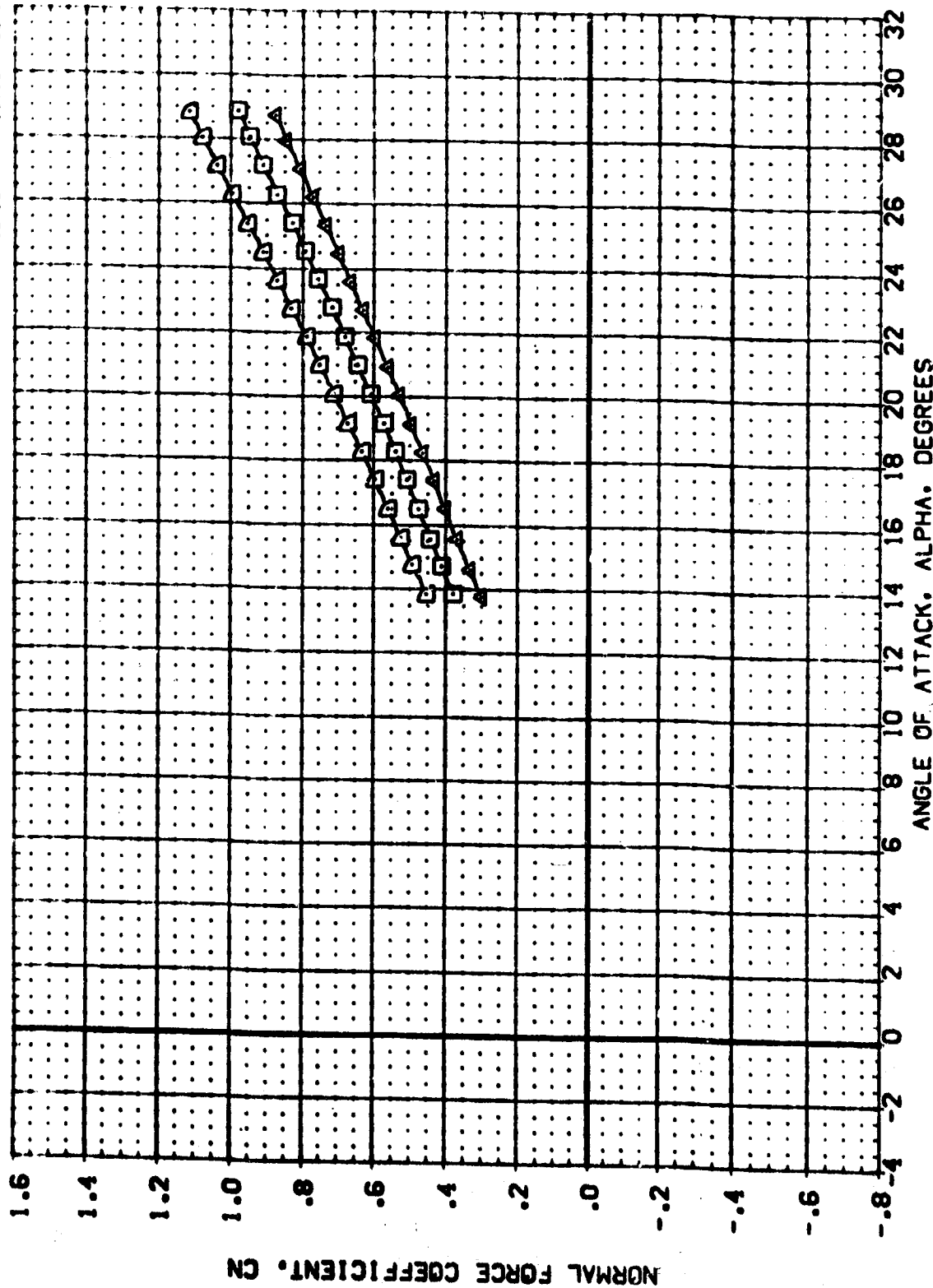
ELEVON ROLLR BLAP RVL REFERENCE INFORMATION
 0000 54.920 -14.250 11.300 SREF 6053 SCALF 5
 -0000 54.920 -14.250 11.300 LREF 7122 SCALF 5
 -40000 54.920 -14.250 11.300 BREF 14502 SCALF 5
 -15000 54.920 -13.750 11.300 Y400 2.617 SCALF 5
 15000 54.920 13.750 11.300 Z400 6.000 SCALF 5
 SCALE 0.150



ELEVON EFFECTIVENESS

(A)MACH = 2.00

PAGE 100

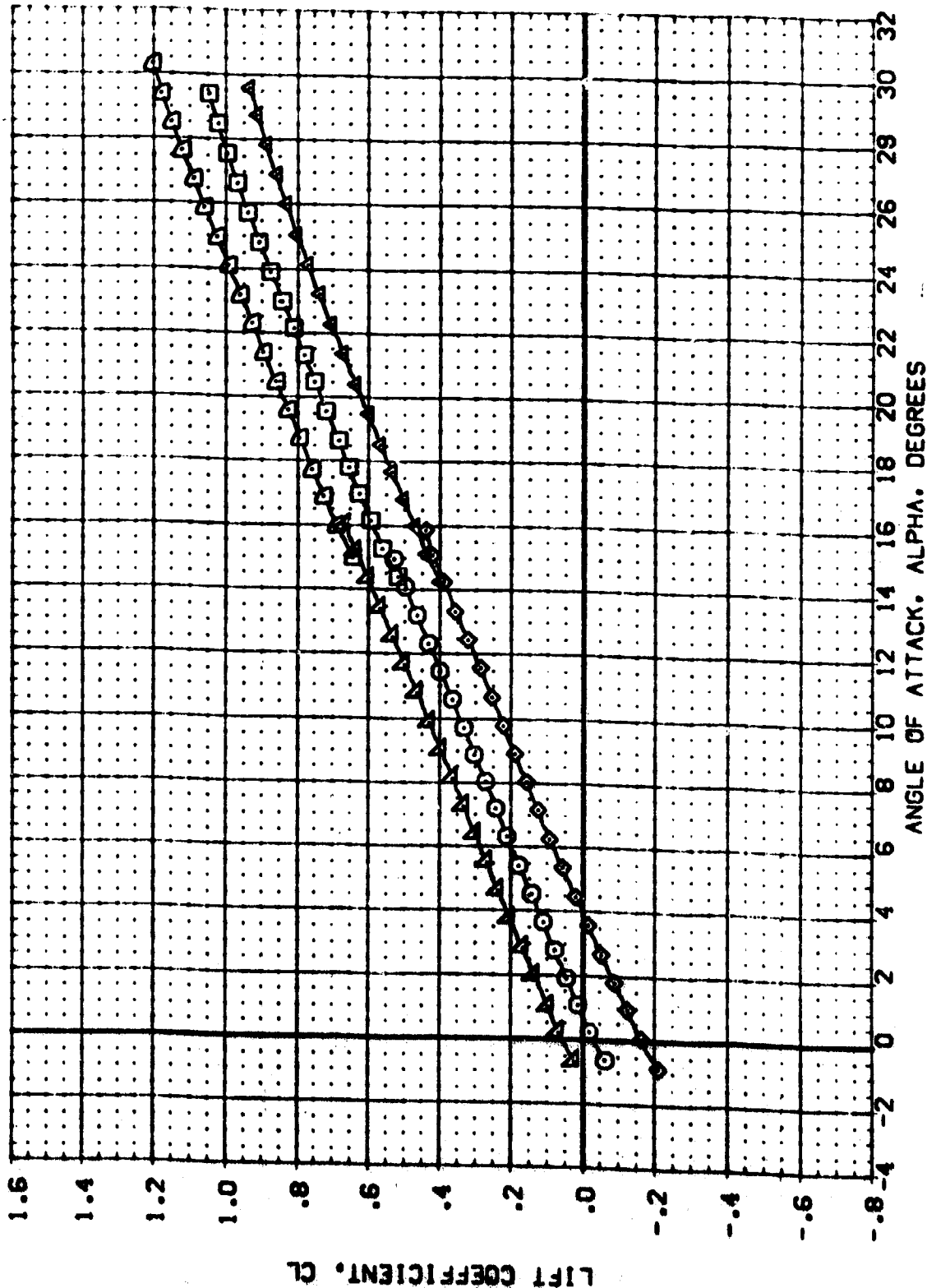
[illegible]

ELEVON EFFECTIVENESS

```
(B)MACH = 3.01
```

PAGE 10

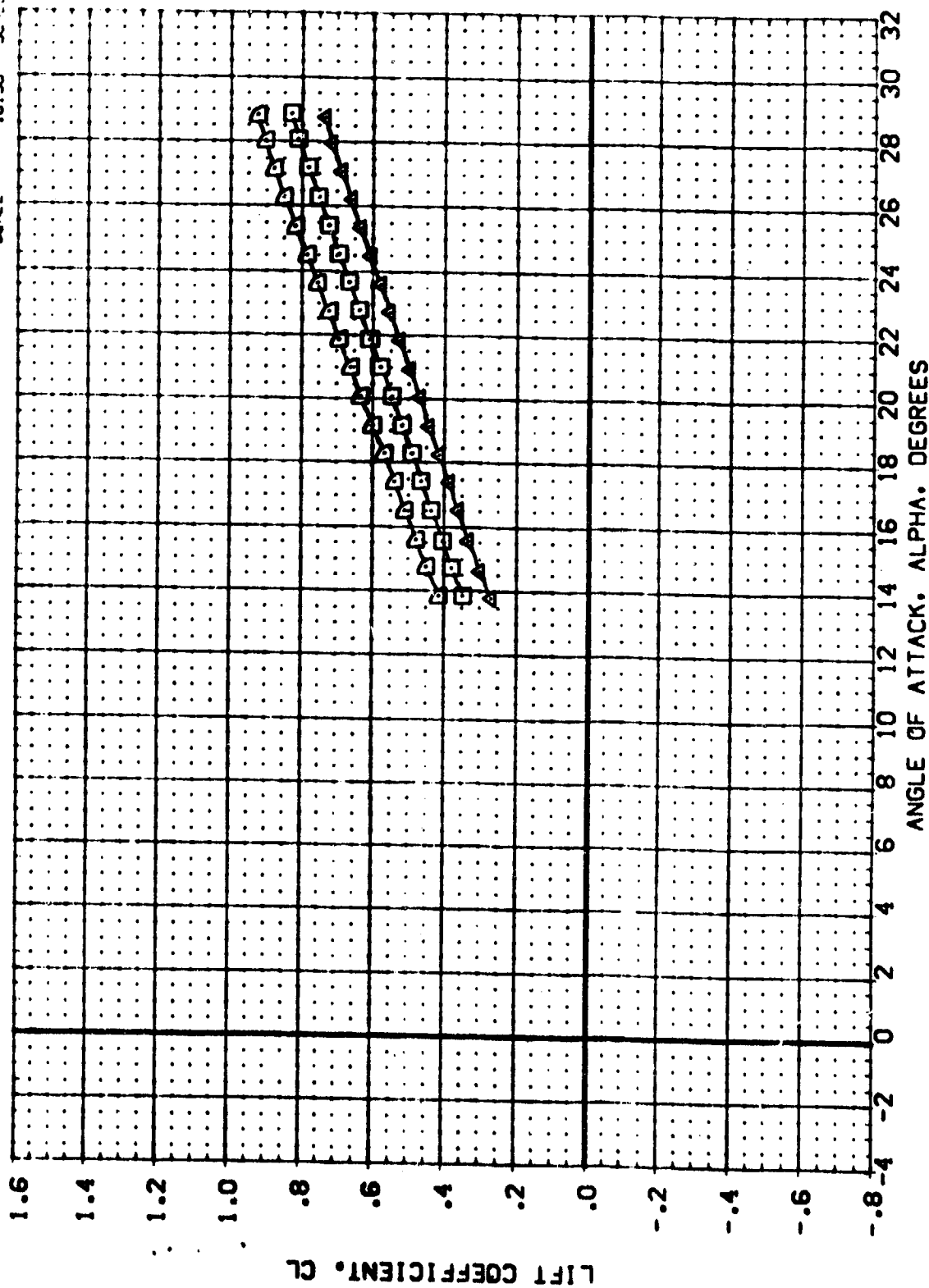
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	R.D.F.R	BE LAP	RVA	REFERENCE INFORMATION
00003	0000	0000	0000	0000	0000	0000	0000
00004	0000	0000	0000	0000	0000	0000	0000
00005	0000	0000	0000	0000	0000	0000	0000
00006	0000	0000	0000	0000	0000	0000	0000
00007	0000	0000	0000	0000	0000	0000	0000
00008	0000	0000	0000	0000	0000	0000	0000
00009	0000	0000	0000	0000	0000	0000	0000
00010	0000	0000	0000	0000	0000	0000	0000
00011	0000	0000	0000	0000	0000	0000	0000
00012	0000	0000	0000	0000	0000	0000	0000
00013	0000	0000	0000	0000	0000	0000	0000
00014	0000	0000	0000	0000	0000	0000	0000
00015	0000	0000	0000	0000	0000	0000	0000
00016	0000	0000	0000	0000	0000	0000	0000
00017	0000	0000	0000	0000	0000	0000	0000
00018	0000	0000	0000	0000	0000	0000	0000
00019	0000	0000	0000	0000	0000	0000	0000
00020	0000	0000	0000	0000	0000	0000	0000
00021	0000	0000	0000	0000	0000	0000	0000
00022	0000	0000	0000	0000	0000	0000	0000
00023	0000	0000	0000	0000	0000	0000	0000
00024	0000	0000	0000	0000	0000	0000	0000
00025	0000	0000	0000	0000	0000	0000	0000
00026	0000	0000	0000	0000	0000	0000	0000
00027	0000	0000	0000	0000	0000	0000	0000
00028	0000	0000	0000	0000	0000	0000	0000
00029	0000	0000	0000	0000	0000	0000	0000
00030	0000	0000	0000	0000	0000	0000	0000
00031	0000	0000	0000	0000	0000	0000	0000
00032	0000	0000	0000	0000	0000	0000	0000
00033	0000	0000	0000	0000	0000	0000	0000
00034	0000	0000	0000	0000	0000	0000	0000
00035	0000	0000	0000	0000	0000	0000	0000
00036	0000	0000	0000	0000	0000	0000	0000
00037	0000	0000	0000	0000	0000	0000	0000
00038	0000	0000	0000	0000	0000	0000	0000
00039	0000	0000	0000	0000	0000	0000	0000
00040	0000	0000	0000	0000	0000	0000	0000
00041	0000	0000	0000	0000	0000	0000	0000
00042	0000	0000	0000	0000	0000	0000	0000
00043	0000	0000	0000	0000	0000	0000	0000
00044	0000	0000	0000	0000	0000	0000	0000
00045	0000	0000	0000	0000	0000	0000	0000
00046	0000	0000	0000	0000	0000	0000	0000
00047	0000	0000	0000	0000	0000	0000	0000
00048	0000	0000	0000	0000	0000	0000	0000
00049	0000	0000	0000	0000	0000	0000	0000
00050	0000	0000	0000	0000	0000	0000	0000
00051	0000	0000	0000	0000	0000	0000	0000
00052	0000	0000	0000	0000	0000	0000	0000
00053	0000	0000	0000	0000	0000	0000	0000
00054	0000	0000	0000	0000	0000	0000	0000
00055	0000	0000	0000	0000	0000	0000	0000
00056	0000	0000	0000	0000	0000	0000	0000
00057	0000	0000	0000	0000	0000	0000	0000
00058	0000	0000	0000	0000	0000	0000	0000
00059	0000	0000	0000	0000	0000	0000	0000
00060	0000	0000	0000	0000	0000	0000	0000
00061	0000	0000	0000	0000	0000	0000	0000
00062	0000	0000	0000	0000	0000	0000	0000
00063	0000	0000	0000	0000	0000	0000	0000
00064	0000	0000	0000	0000	0000	0000	0000
00065	0000	0000	0000	0000	0000	0000	0000
00066	0000	0000	0000	0000	0000	0000	0000
00067	0000	0000	0000	0000	0000	0000	0000
00068	0000	0000	0000	0000	0000	0000	0000
00069	0000	0000	0000	0000	0000	0000	0000
00070	0000	0000	0000	0000	0000	0000	0000
00071	0000	0000	0000	0000	0000	0000	0000
00072	0000	0000	0000	0000	0000	0000	0000
00073	0000	0000	0000	0000	0000	0000	0000
00074	0000	0000	0000	0000	0000	0000	0000
00075	0000	0000	0000	0000	0000	0000	0000
00076	0000	0000	0000	0000	0000	0000	0000
00077	0000	0000	0000	0000	0000	0000	0000
00078	0000	0000	0000	0000	0000	0000	0000
00079	0000	0000	0000	0000	0000	0000	0000
00080	0000	0000	0000	0000	0000	0000	0000
00081	0000	0000	0000	0000	0000	0000	0000
00082	0000	0000	0000	0000	0000	0000	0000
00083	0000	0000	0000	0000	0000	0000	0000
00084	0000	0000	0000	0000	0000	0000	0000
00085	0000	0000	0000	0000	0000	0000	0000
00086	0000	0000	0000	0000	0000	0000	0000
00087	0000	0000	0000	0000	0000	0000	0000
00088	0000	0000	0000	0000	0000	0000	0000
00089	0000	0000	0000	0000	0000	0000	0000
00090	0000	0000	0000	0000	0000	0000	0000
00091	0000	0000	0000	0000	0000	0000	0000
00092	0000	0000	0000	0000	0000	0000	0000
00093	0000	0000	0000	0000	0000	0000	0000
00094	0000	0000	0000	0000	0000	0000	0000
00095	0000	0000	0000	0000	0000	0000	0000
00096	0000	0000	0000	0000	0000	0000	0000
00097	0000	0000	0000	0000	0000	0000	0000
00098	0000	0000	0000	0000	0000	0000	0000
00099	0000	0000	0000	0000	0000	0000	0000
00100	0000	0000	0000	0000	0000	0000	0000



ELEVON EFFECTIVENESS

(A)MACH = 2.00

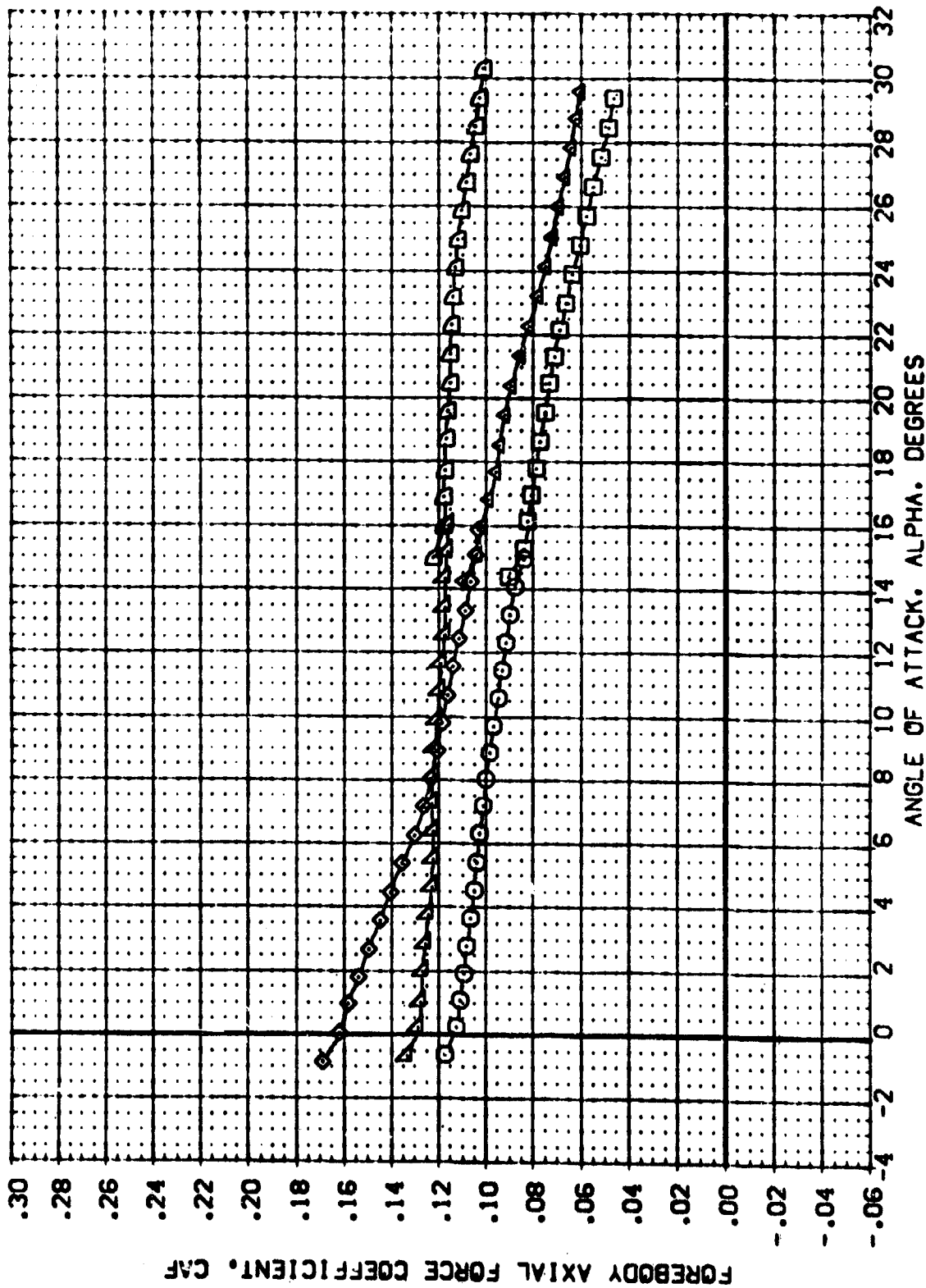
DATA	NOT	AVAILABLE		
CA68 B22	C7 M5	V:11	E23	V7 R5
DATA	NOT	AVAILABLE		
CA68 B22	C7 M5	V:11	E23	V7 R5
DATA	NOT	AVAILABLE		
CA68 B22	C7 M5	V:11	E23	V7 R5

[illegible]

ELEVON EFFECTIVENESS

$$C_{BOMACH} = 3.01$$

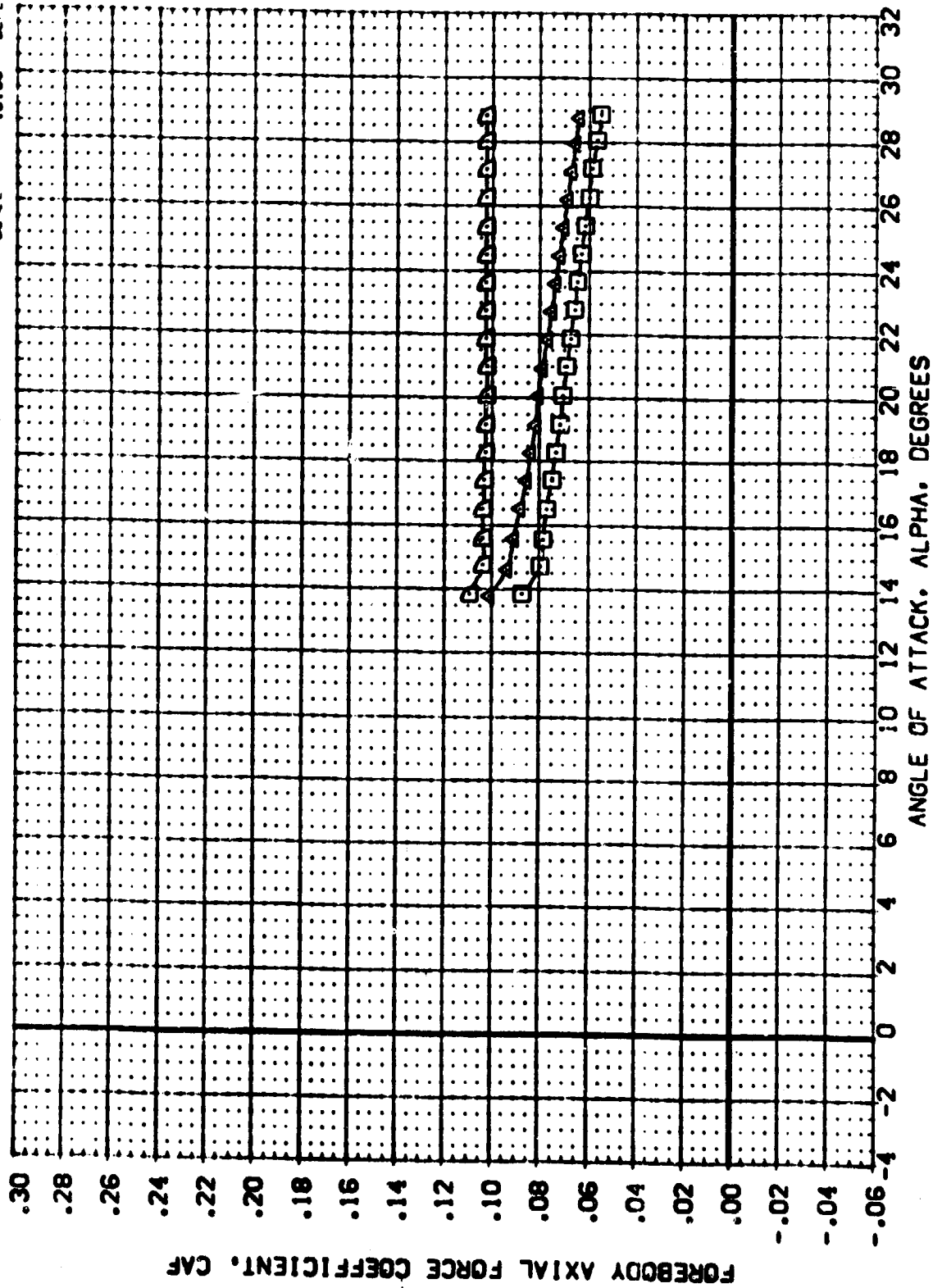
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	R/OFLR	BLAP	RVL	REFERENCE INFORMATION
00003	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.300	SPEF .6053
00004	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.100	LREF 7.1222
00005	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.200	BRF 4.0200
00006	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.300	XREF 2.6177
00007	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.400	YREF 6.0000
00008	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.500	ZREF 6.0000
00009	0	0A68 B22 07 04 FS 011 E23 V7 B5	.00	54.920	-14.250	.600	SCALE 6.0000



ELEVON EFFECTIVENESS

(M)MACH = 2.00

DATA SET	STATUS	CONFIRMATION DESCRIPTION	ELEVATION	RANGE	REFLAP	QUAL	REFERENCE	SYNOPSIS
DATA 001	OK	DATA NOT AVAILABLE	0000	54.920	14.200	00000000	6053	00000000
DATA 002	OK	DATA NOT AVAILABLE	0000	54.920	14.200	00000000	7.223	00000000
DATA 003	OK	DATA NOT AVAILABLE	-0000	54.920	14.200	00000000	2.623	00000000
DATA 004	OK	DATA NOT AVAILABLE	-0000	54.920	13.200	00000000	2.623	00000000
DATA 005	OK	DATA NOT AVAILABLE	15.000	54.920	13.200	00000000	6.013	00000000
DATA 006	OK	DATA NOT AVAILABLE	15.000	54.920	13.200	00000000	6.013	00000000

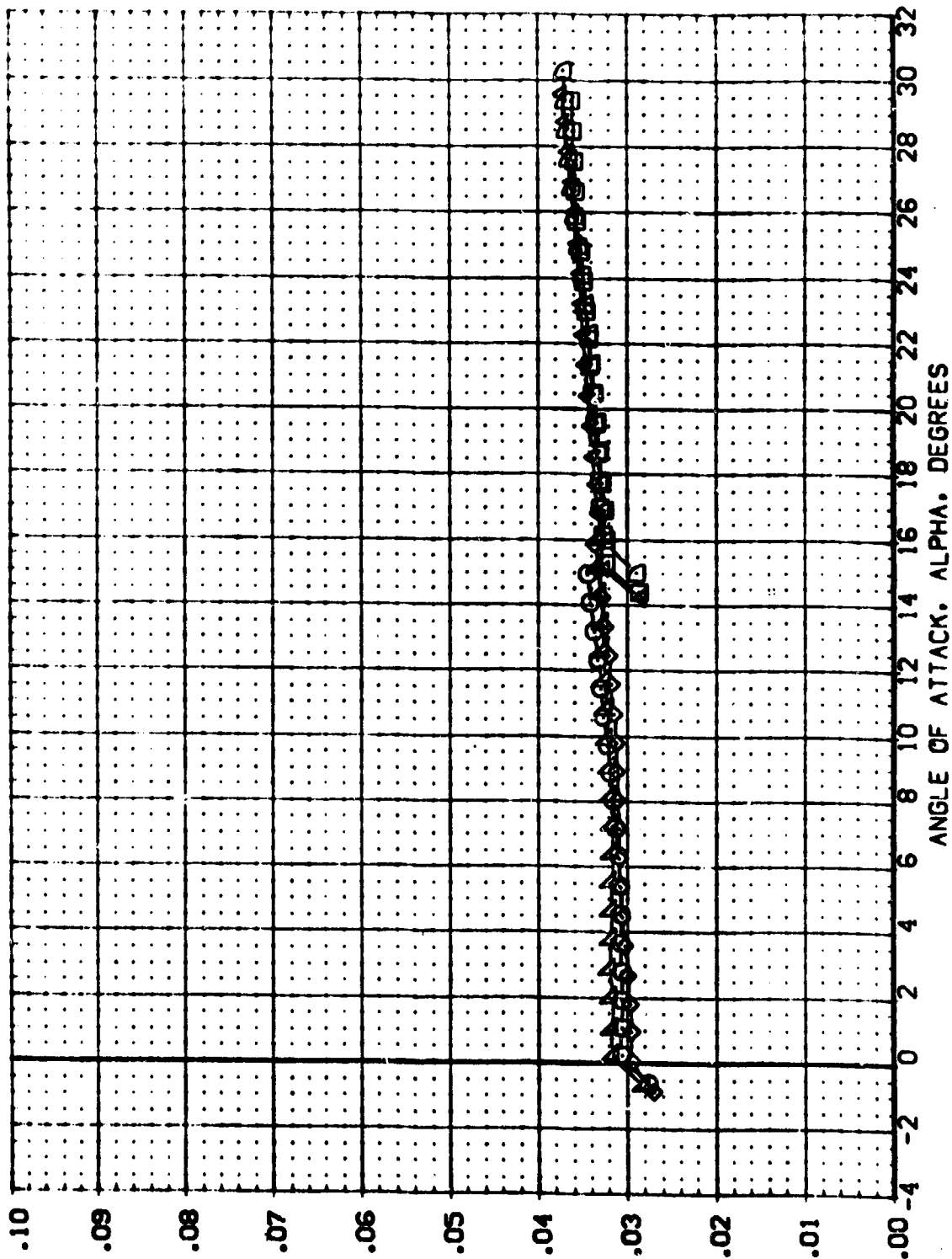


ELEVON EFFECTIVENESS

$$[\text{B}]\text{MAC}^+ = 3.0;$$

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	RULAP	BLAP	RV	REFERENCE	WOP
0000	1	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	6000	5.500000
0001	2	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	7000	5.500000
0002	3	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	8000	5.500000
0003	4	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	9000	5.500000
0004	5	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	1000	5.500000
0005	6	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	2000	5.500000
0006	7	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	3000	5.500000
0007	8	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	4000	5.500000
0008	9	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	5000	5.500000
0009	10	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	6000	5.500000
0010	11	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	7000	5.500000
0011	12	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	8000	5.500000
0012	13	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	9000	5.500000
0013	14	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	1000	5.500000
0014	15	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	2000	5.500000
0015	16	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	3000	5.500000
0016	17	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	4000	5.500000
0017	18	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	5000	5.500000
0018	19	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	6000	5.500000
0019	20	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	7000	5.500000
0020	21	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	8000	5.500000
0021	22	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	9000	5.500000
0022	23	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	1000	5.500000
0023	24	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	2000	5.500000
0024	25	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	3000	5.500000
0025	26	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	4000	5.500000
0026	27	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	5000	5.500000
0027	28	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	6000	5.500000
0028	29	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	7000	5.500000
0029	30	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	8000	5.500000
0030	31	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	9000	5.500000
0031	32	148 822	14 FS V	00000000	34.9200	14.2500	1.00000000	1000	5.500000

TOTAL BASE AXIAL FORCE COEFFICIENT (CAB + CAB2) • CAB1

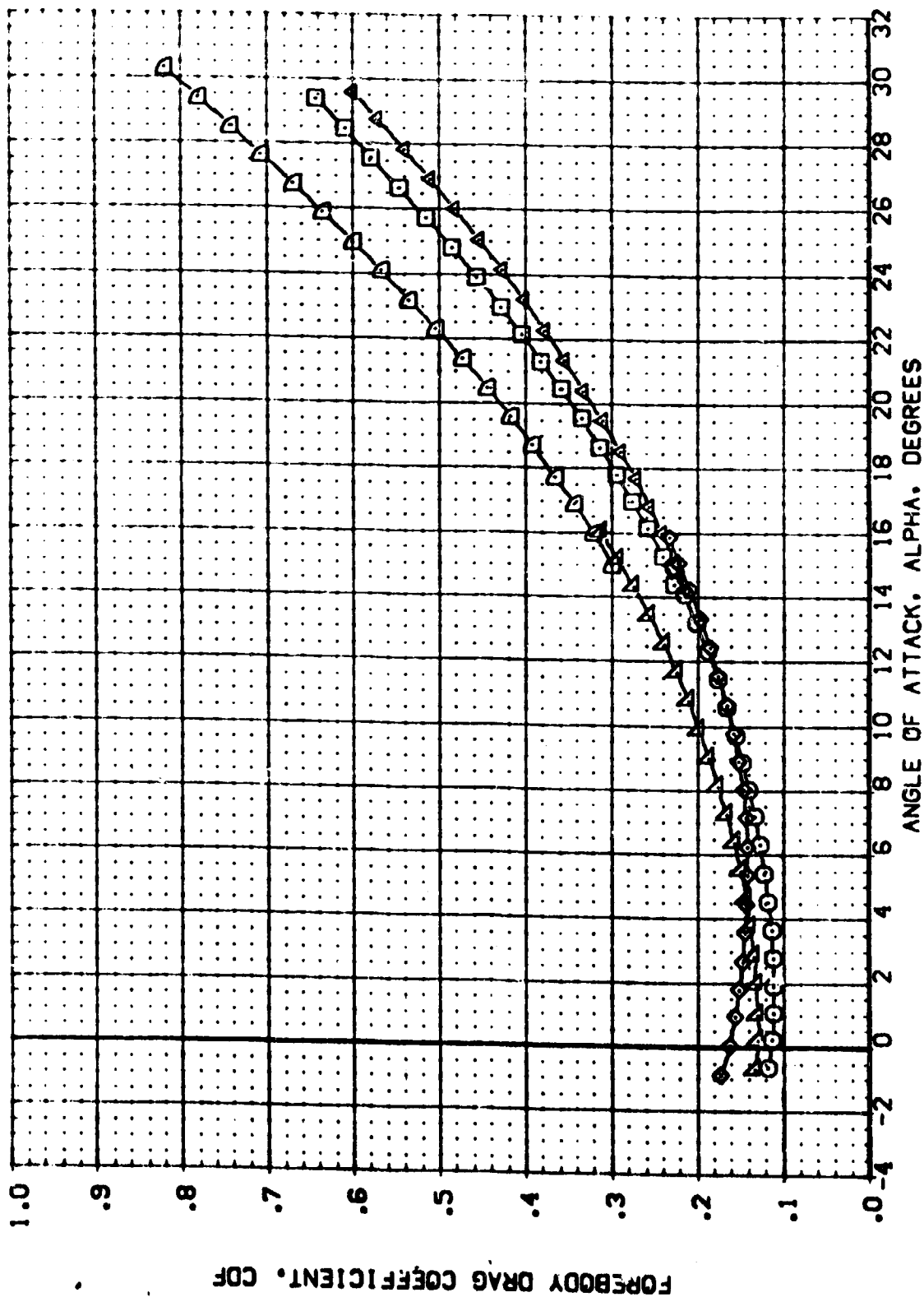


ELEVON EFFECTIVENESS

(A)MACH = 2.00

PAGE 106

ELEV8	00000000 00000000 00000000
ROTOR	00000000 90000000 55555555
BFLAP	00000000 44444444 00000000
PWUL	00000000
REFERENCE	SREF 00000000 LREF 00000000 VREF 00000000 SCALE 7426
VOR-PA	00000000 00000000 00000000

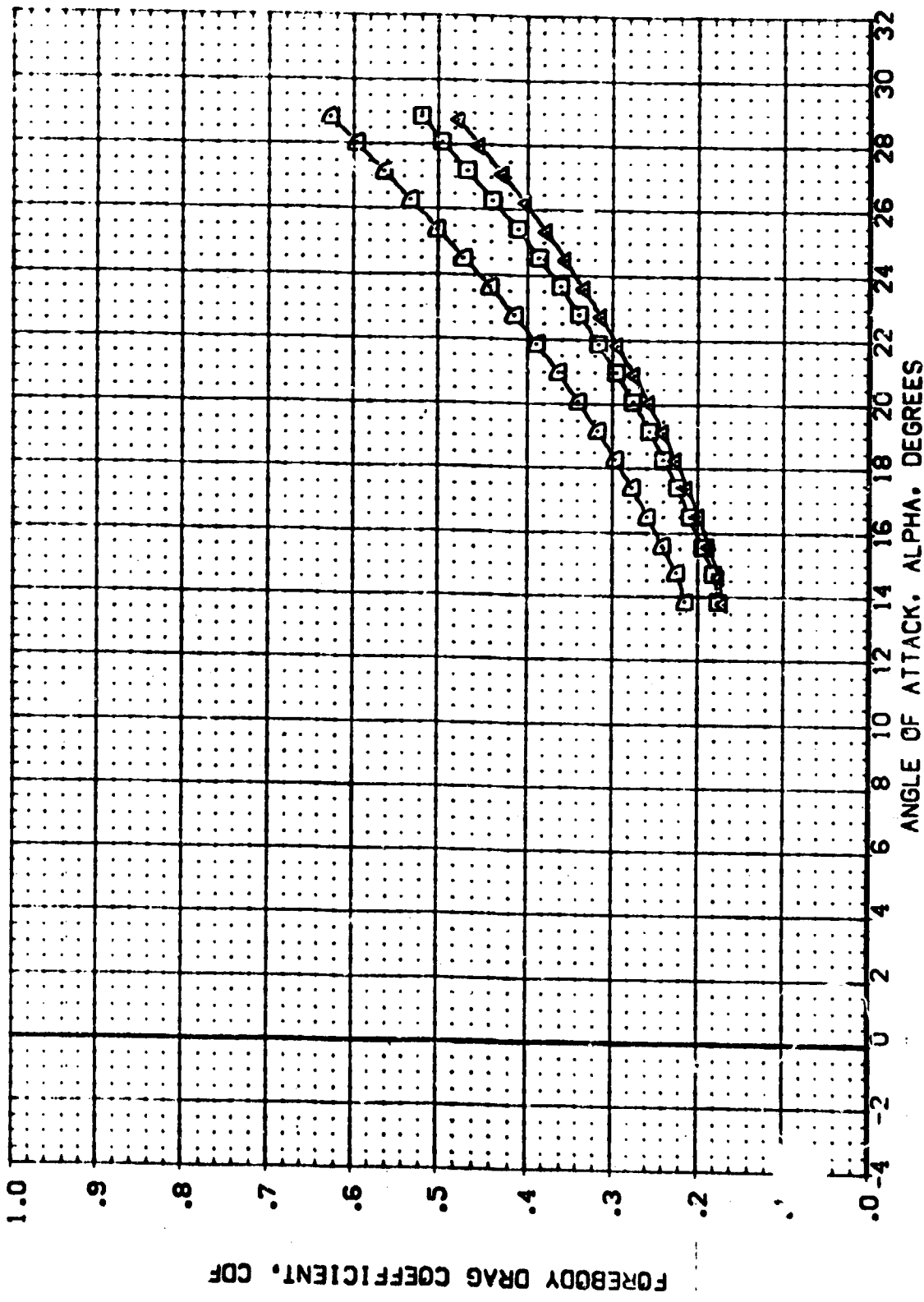


ELEVON EFFECTIVENESS

(A)MACH = 2.00

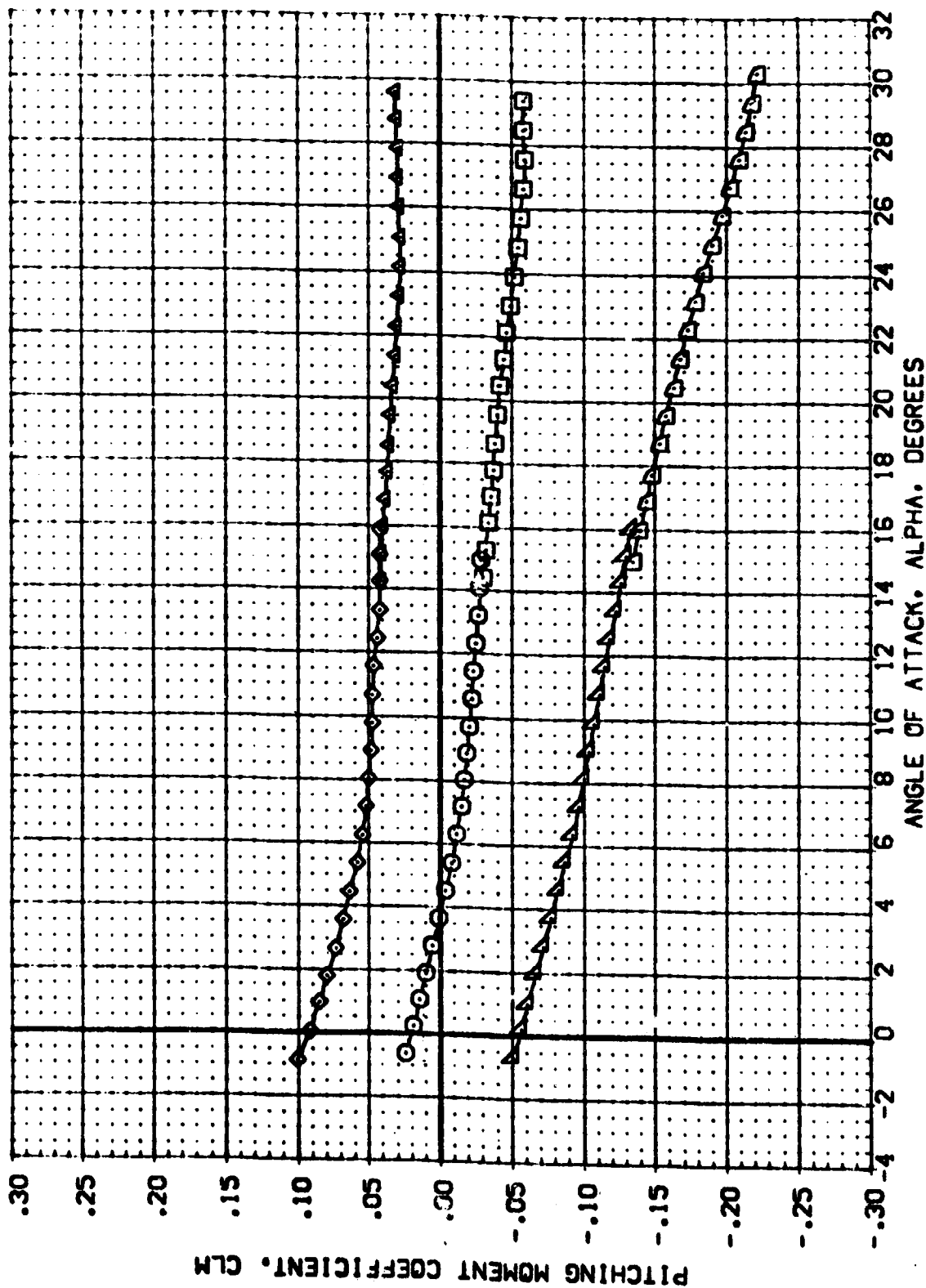
PAGE : 08

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ELEVON	RJDLR	BLAP	RVL	REFERENCE INFORMATION
[C0003]	DATA NOT AVAILABLE	.000	S4.920	-14.250	11.000	SREF
[C0004]	S468 B22 C7 M4 FS VIII E23 V7 R5	.000	S4.920	-14.250	11.000	LRFF
[C0005]	DATA NOT AVAILABLE	.000	S4.920	-14.250	11.000	BRFF
[C0006]	S468 B22 C7 M4 FS VIII E23 V7 R5	.000	S4.920	-14.250	11.000	XRFF
[C0007]	DATA NOT AVAILABLE	.000	S4.920	-14.250	11.000	YRFF
[C0008]	S468 B22 C7 M4 FS VIII E23 V7 R5	.000	S4.920	-14.250	11.000	ZRFF
						SCALE



ELEVON EFFECTIVENESS

(B)MAC = 3.01

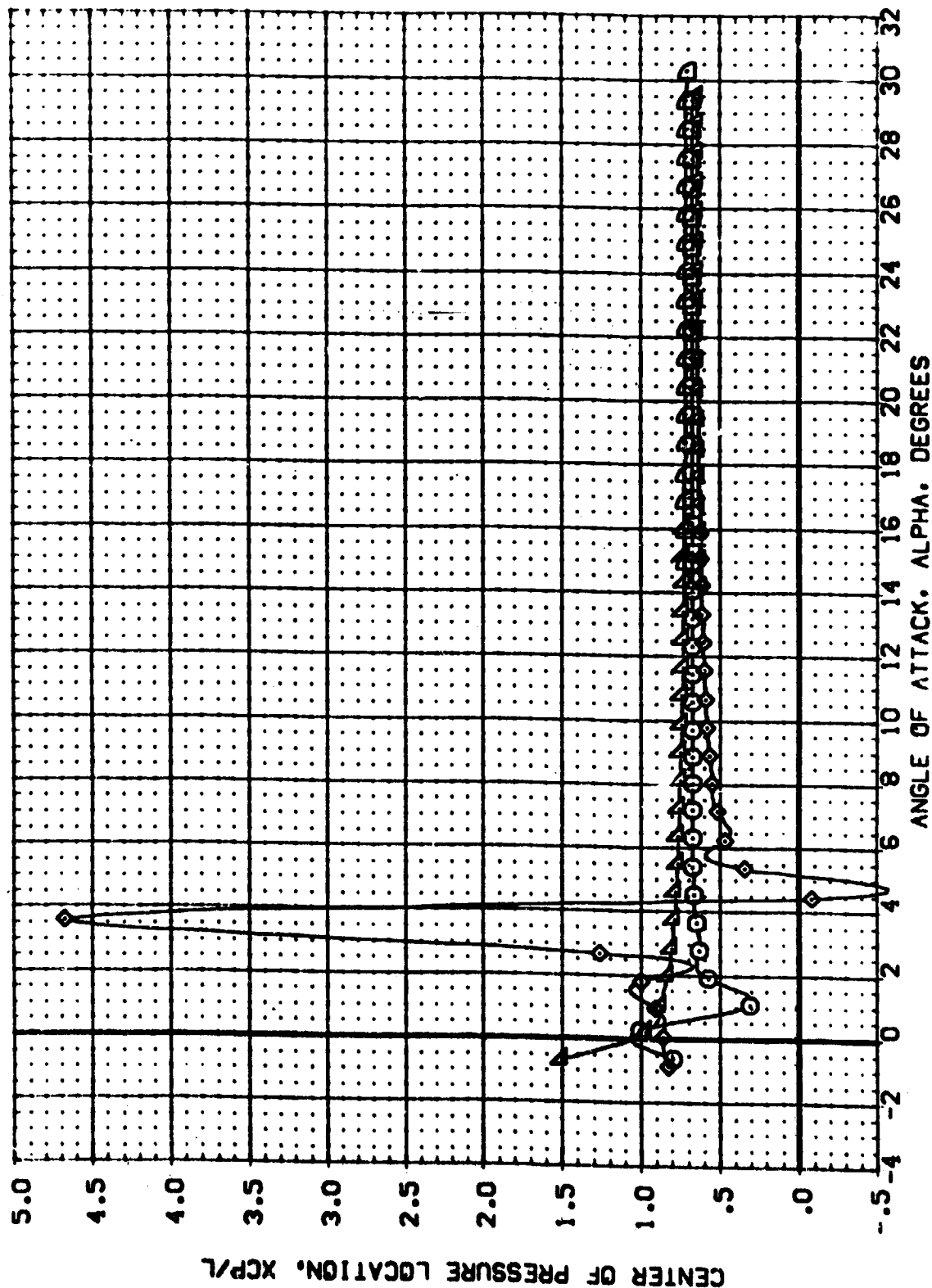
[illegible]

ELEVON EFFECTIVENESS

$$[A]_{\text{MACH}} = 2.00$$

PAGE 113

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	RJYLR	BF LAP	RM/L	REFERENCE INFORMATION
00003	00003	0468 B22 C7 M4 FS V111 E23 V7 R5	.000	54.920	-14.250	11.300	SREF
00004	00004	0468 B22 C7 M4 FS V111 E23 V7 R5	.000	54.920	-14.250	11.300	REF
00005	00005	0468 B22 C7 M4 FS V111 E23 V7 R5	-40.000	54.920	-14.250	11.300	REF
00006	00006	0468 B22 C7 M4 FS V111 E23 V7 R5	-40.000	54.920	-14.250	11.300	REF
00007	00007	0468 B22 C7 M4 FS V111 E23 V7 R5	15.000	54.920	-13.750	11.300	REF
00008	00008	0468 B22 C7 M4 FS V111 E23 V7 R5	15.000	54.920	-13.750	11.300	REF

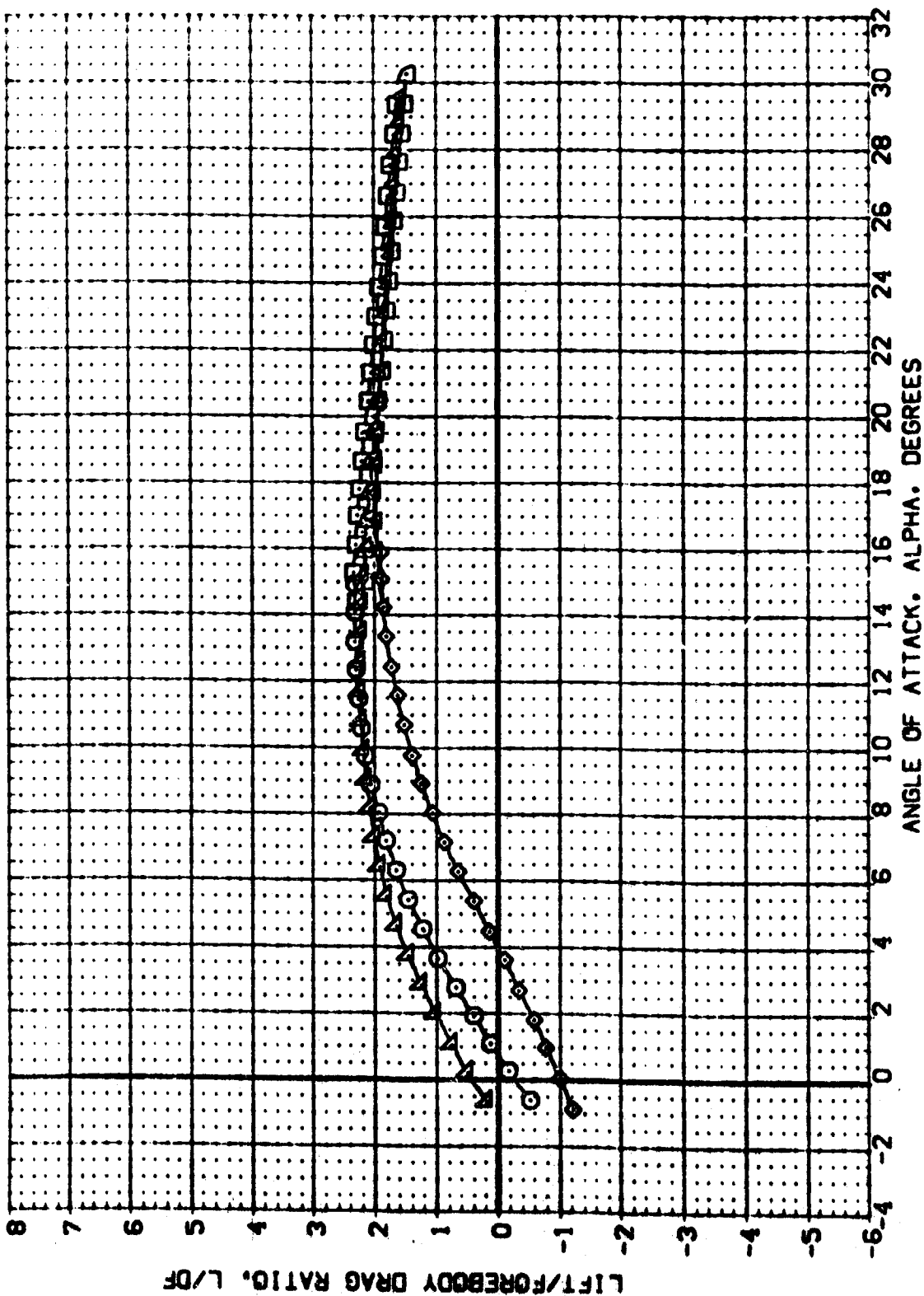


ELEVON EFFECTIVENESS

(A)YACH = 2.00

DATA SET SYMBOL: 000033
 CONFIGURATION DESCRIPTION: 0468 B02 07 M4 F5 V111 E23 V7 RS
 000004 0468 B02 07 M4 F5 V111 E23 V7 RS
 000003 0468 B02 07 M4 F5 V111 E23 V7 RS
 000004 0468 B02 07 M4 F5 V111 E23 V7 RS
 000007 0468 B02 07 M4 F5 V111 E23 V7 RS
 000008 0468 B02 07 M4 F5 V111 E23 V7 RS

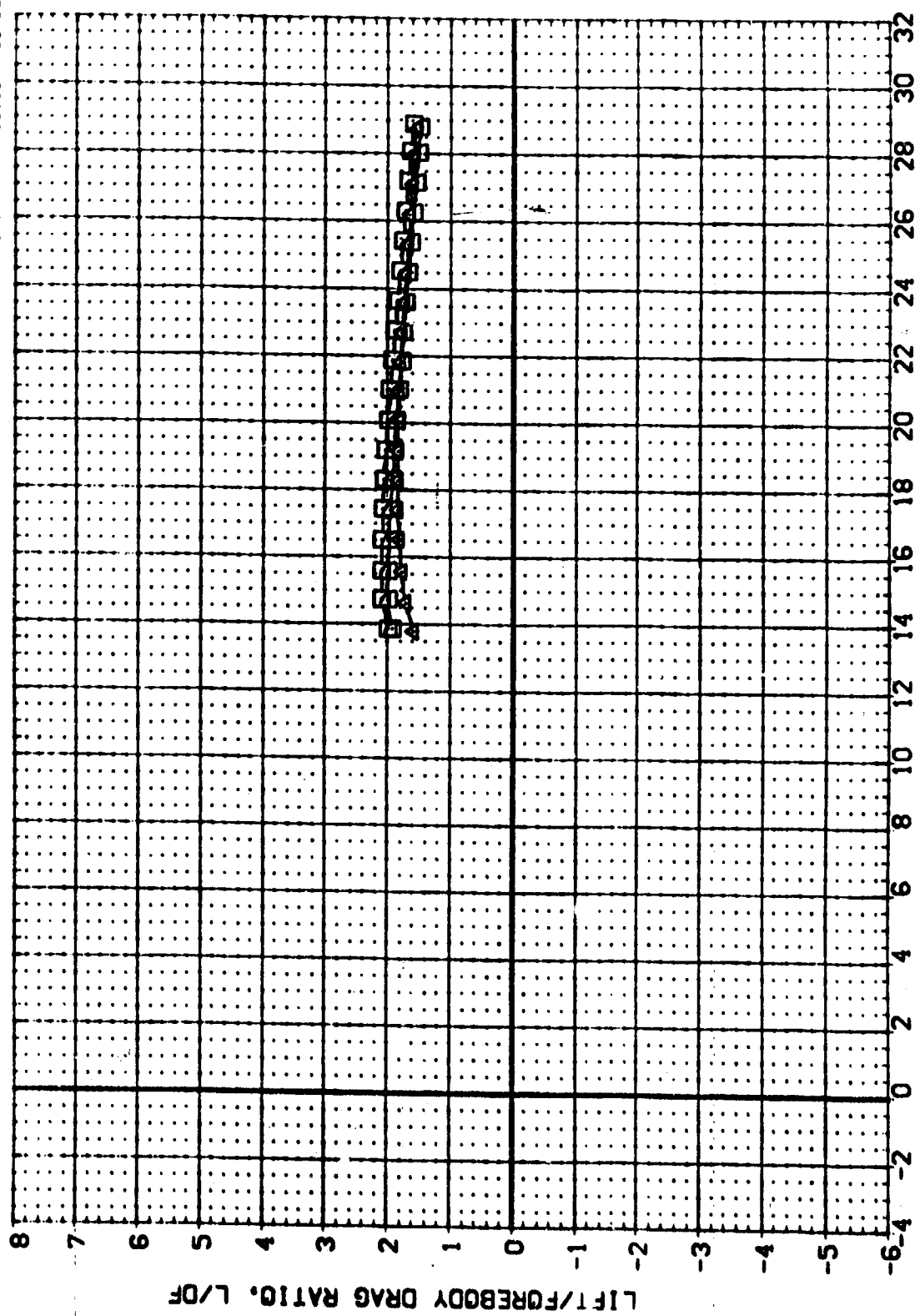
ELEVON REFERENCE INFORMATION:
 ELEVON: 000000
 R/O/L/R: 54.920
 B/LAP: -14.250
 R/V/L: 000000
 S/R: 6053
 L/R: 7.222
 B/R: 4.666
 X/R: 0.000
 Y/R: 0.000
 Z/R: 6.000
 SCALE: 0.000



ELEVON EFFECTIVENESS

(A)MACH = 2.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	RJOLR	BLAP	RVL	REFERENCE INFORMATION
00003	DATA NOT AVAILABLE	000	54.920	-14.750	000	SREF 6753
00004	DATA NOT AVAILABLE	000	54.920	-14.750	000	REF 7.1222
00005	DATA NOT AVAILABLE	000	54.920	-14.750	000	BREF 4.0000
00006	DATA NOT AVAILABLE	000	54.920	-14.750	000	XREF 2.6171
00007	DATA NOT AVAILABLE	000	54.920	-14.750	000	YREF 6.0000
00008	DATA NOT AVAILABLE	000	54.920	-14.750	000	ZREF 6.0000
						SCALE 0.100



ANGLE OF ATTACK, ALPHA, DEGREES

ELEVON EFFECTIVENESS

(B)MACH = 3.0:

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[C0003] DATA NOT AVAILABLE

[C0004] CAGE B22 C7 M4 F5 V111 E23 V7 R5

[C0013] DATA NOT AVAILABLE

[C0014] CAGE B22 C7 M4 F5 V111 E23 V7 R5

[C0017] DATA NOT AVAILABLE

[C0018] CAGE B22 C7 M4 F5 V111 E23 V7 R5

ELEVON R.O.F.R. BFLAP RVL REFERENCE INFORMATION

.000 54.920 -14.250 11.300 SREF .6053 SQ.F.

.000 54.920 -14.250 11.300 OFF 7.1222 VC.F.

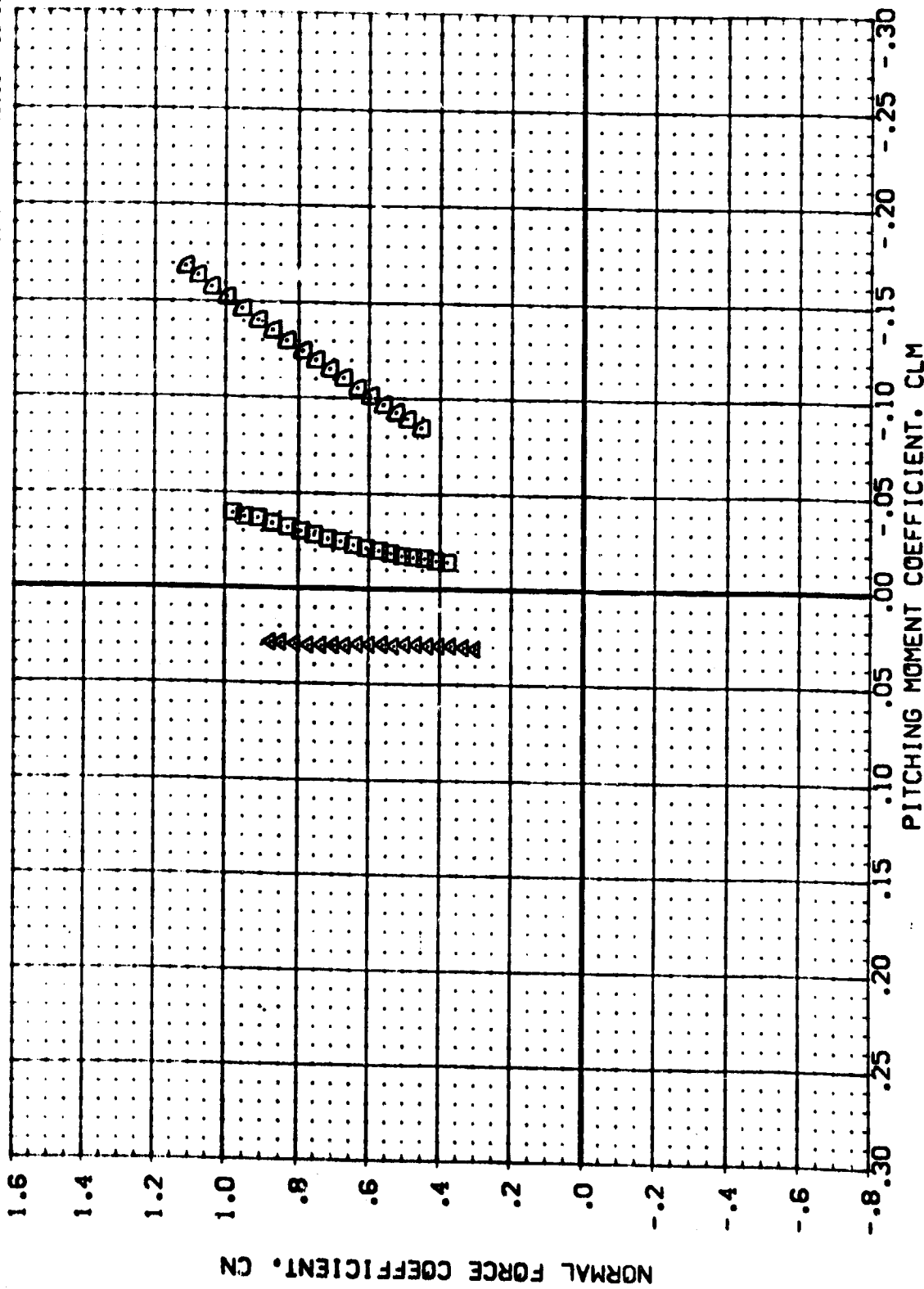
.400 54.920 -14.250 11.300 BRFL 14.652 VC.F.

.400 54.920 -14.250 11.300 XMRP 12.617 VC.F.

.15.000 54.920 -14.250 11.300 YMRP 6.0000 VC.F.

.15.000 54.920 -14.250 11.300 ZMRP 6.0000 VC.F.

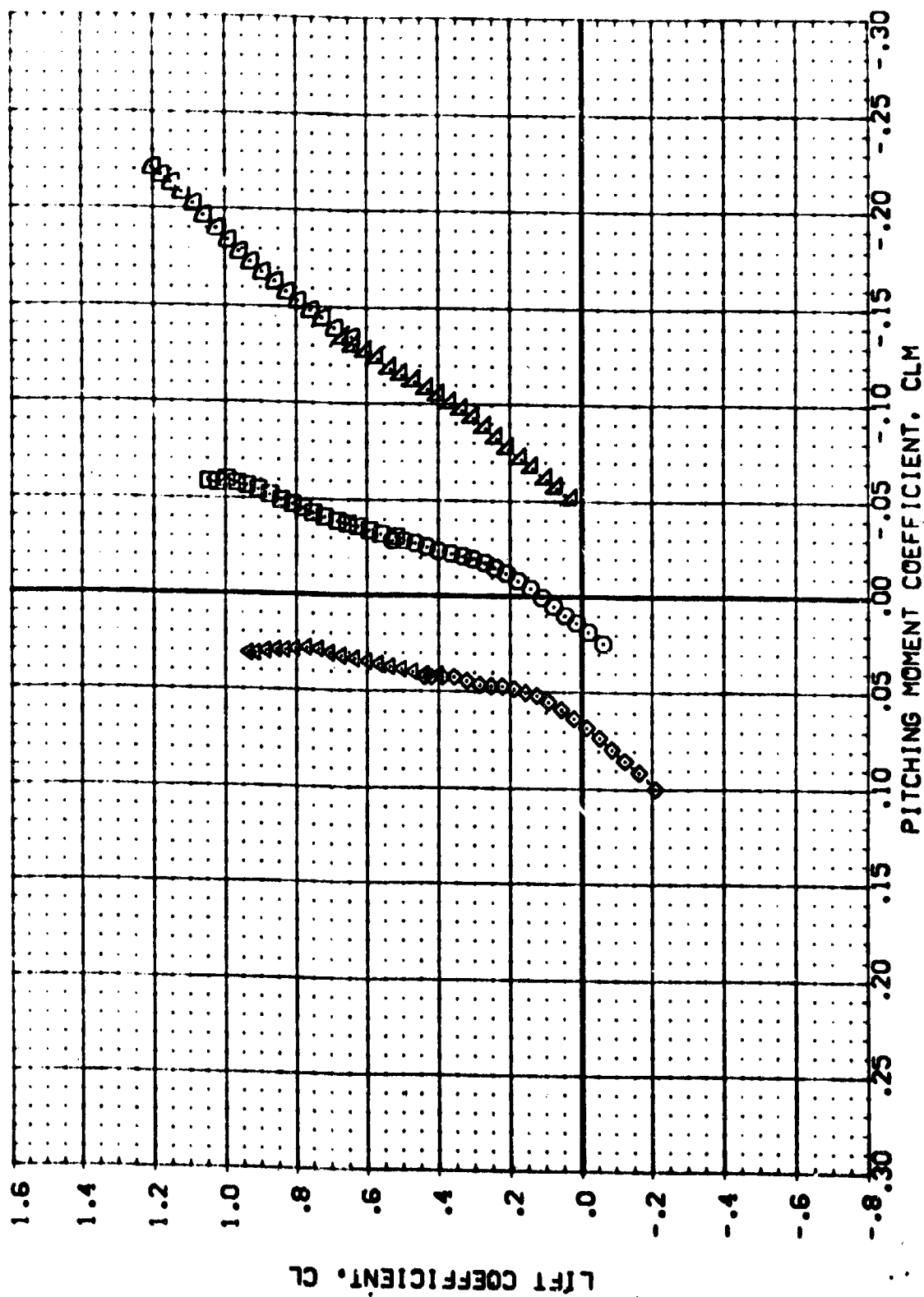
.15.000 54.920 -14.250 11.300 SCALE 0.150 SCALE



ELEVON EFFECTIVENESS

(B)MACH = 3.01

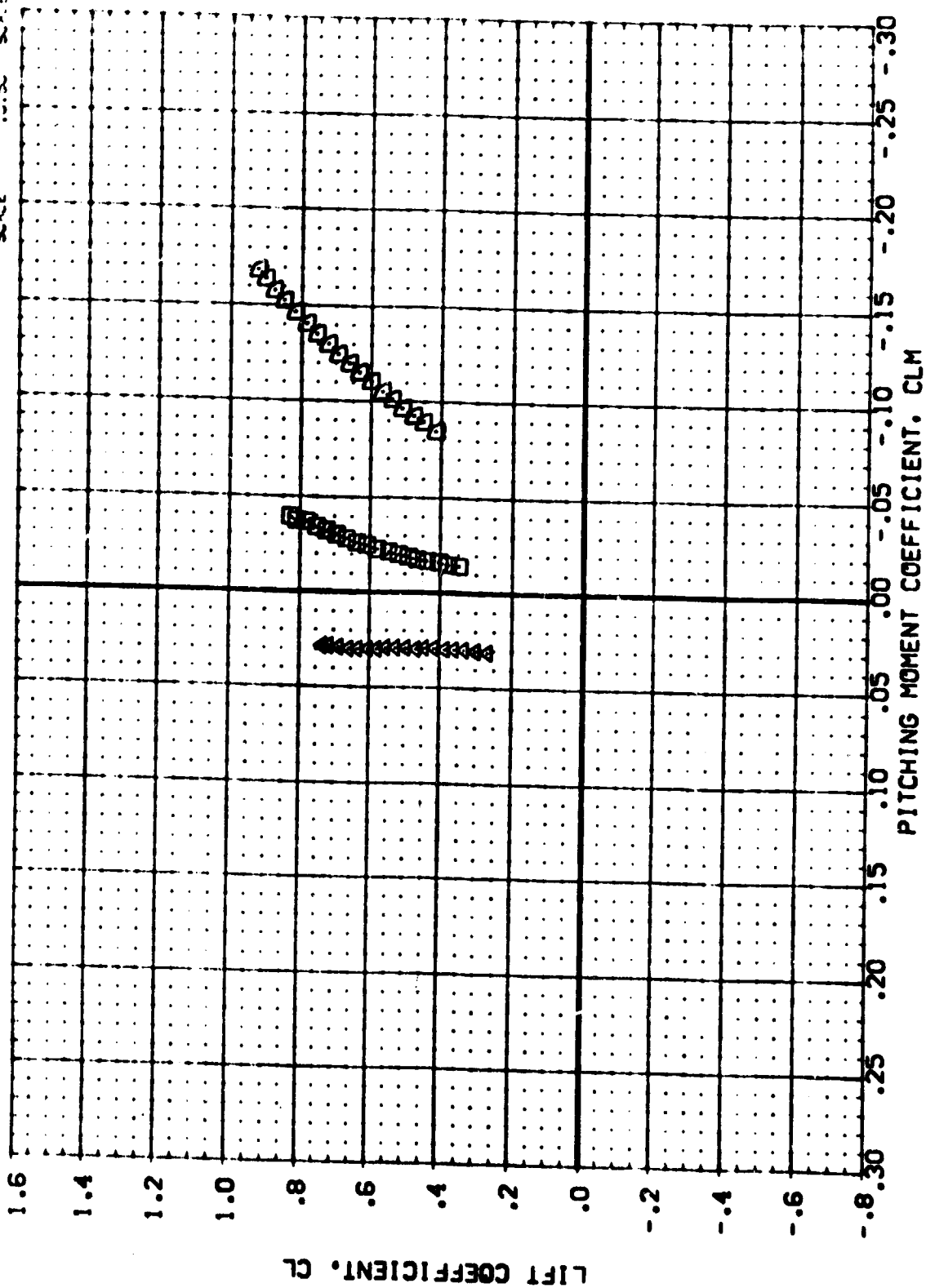
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
00003	0488 822 M4 FS V111 E23 V7 R0 R0	SRF 1.053
00003	0488 822 M4 FS V111 E23 V7 R0 R0	LRF 1.022
00003	0488 822 M4 FS V111 E23 V7 R0 R0	BRF 1.000
00003	0488 822 M4 FS V111 E23 V7 R0 R0	XREF 1.000
00003	0488 822 M4 FS V111 E23 V7 R0 R0	YREF 1.000
00003	0488 822 M4 FS V111 E23 V7 R0 R0	ZREF 1.000
00003	0488 822 M4 FS V111 E23 V7 R0 R0	SCALE 6.000



ELEVON EFFECTIVENESS

(C/MAC) = 2.00

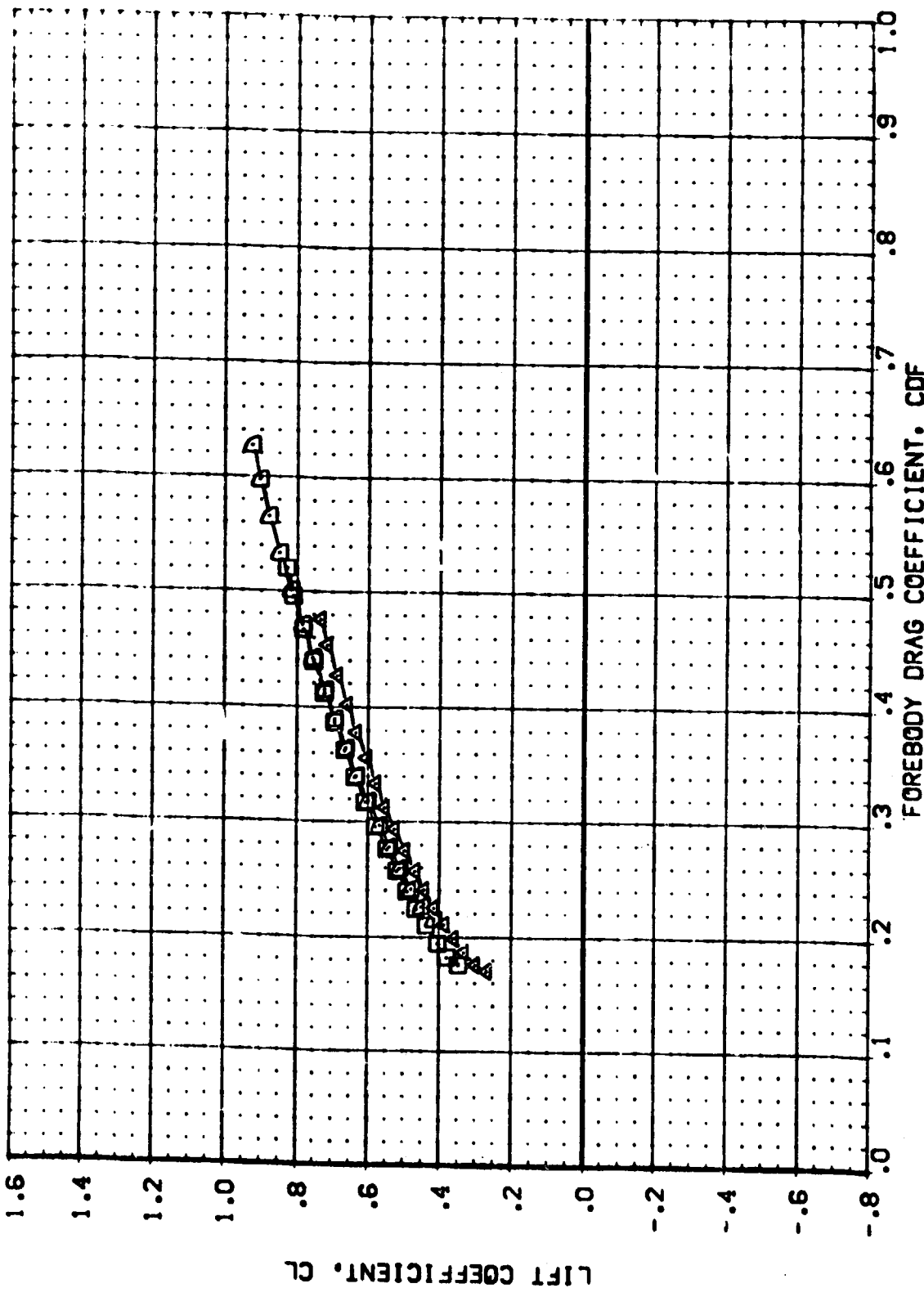
DATA SET: SYMBO	CONFIGURATION DESCRIPTION	ELEVON	R.O.L.R	BFLUP	RVL	REFERENCE INFORMATION
00003	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00004	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00005	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00006	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00007	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00008	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00009	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00010	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00011	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00012	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00013	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00014	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00015	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00016	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00017	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00018	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00019	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00020	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00021	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00022	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00023	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00024	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00025	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00026	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00027	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00028	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00029	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00030	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00031	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00032	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00033	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00034	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00035	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00036	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00037	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00038	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00039	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00040	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00041	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00042	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00043	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00044	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00045	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00046	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00047	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00048	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00049	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00050	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00051	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00052	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00053	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00054	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00055	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00056	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00057	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00058	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00059	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00060	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00061	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00062	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00063	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00064	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00065	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00066	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00067	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00068	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00069	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00070	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00071	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00072	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00073	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00074	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00075	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00076	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00077	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00078	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00079	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00080	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00081	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00082	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00083	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00084	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00085	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00086	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00087	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00088	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00089	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00090	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00091	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00092	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00093	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00094	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00095	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00096	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00097	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00098	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00099	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF
00100	DATA NOT AVAILABLE	000	54.920	-14.200	00000000	REF



ELEVON EFFECTIVENESS

(8)MACH = 3.01

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROOTLR	BFLAP	RNVL	REFERENCE INFORMATION
000003	DATA NOT AVAILABLE	.000	S4.820	-14.250	1.300	SREF
000004	0168 822 C7 M4 F5 V111 E23 V7 R5	.000	S4.820	-14.250	1.300	LRFF
000005	DATA NOT AVAILABLE	-40.000	S4.820	-14.250	1.300	YREF
000006	0168 822 C7 M4 F5 V111 E23 V7 R5	-40.000	S4.820	-14.250	1.300	YMRD
000007	DATA NOT AVAILABLE	15.000	S4.820	13.750	1.300	ZMRD
000008	0168 822 C7 M4 F5 V111 E23 V7 R5	15.000	S4.820	13.750	1.300	SCALE

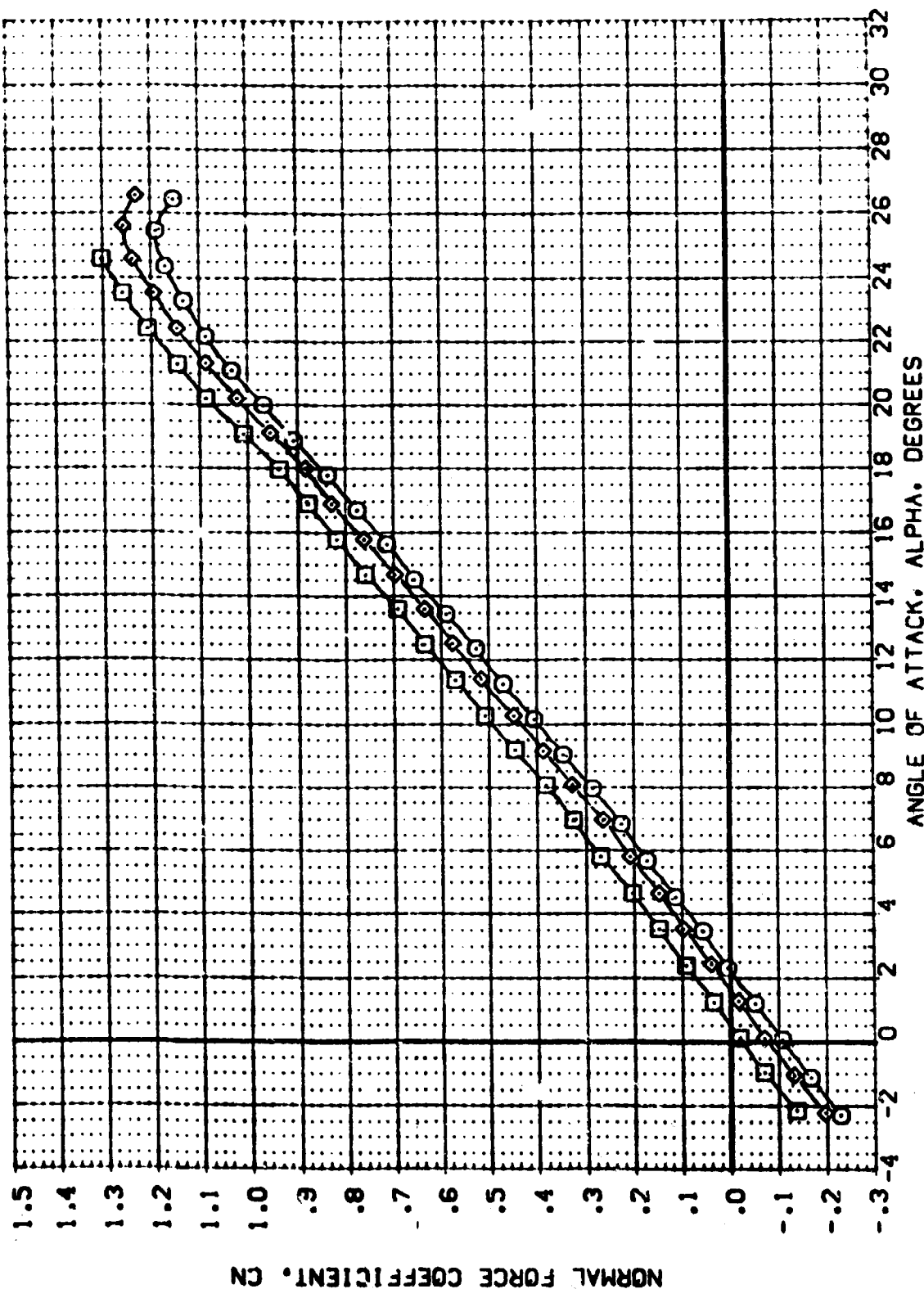


ELEVON EFFECTIVENESS

(B)MACH = 3.01

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 000001 C 0A68 822 C7 M4 FS V11 E23 V7 R5
 000002 C 0A68 822 C7 M4 FS V11 E23 V7 R5
 000003 C 0A68 822 C7 M4 FS V11 E23 V7 R5

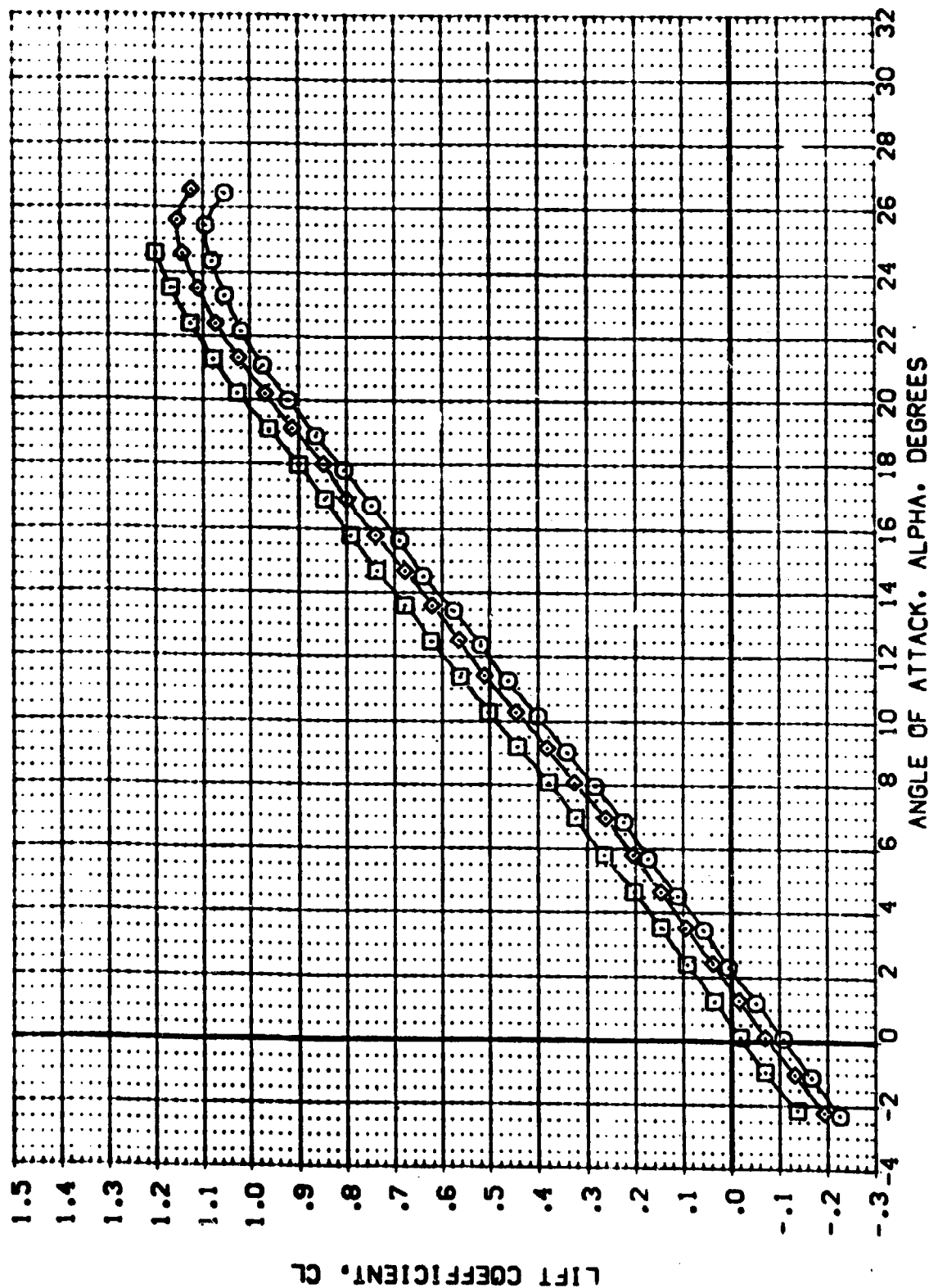
ELEVON RUOFLR BLAP RVL REFERENCE INFORMATION
 .000 24.920 -14.250 7.000 6.253
 .000 24.920 13.750 7.000 7.000
 .000 24.920 .000 7.000 7.000
 SCALE 6.0000 0.50



BODY FLAP EFFECTIVENESS

(A)MACH = .6

ELEV	PLOT R	BFLAP	R/W	REFERENCE	ADDITIONAL
:000	24.970	-14.250	7.000	SURF	8.9999999
:000	24.970	-13.750	7.000	REF	8.9999999
:000	24.970	.000	7.000	DECK	8.9999999
				XERO	8.9999999
				WALL	8.9999999
				DOOR	8.9999999
				STAIR	8.9999999



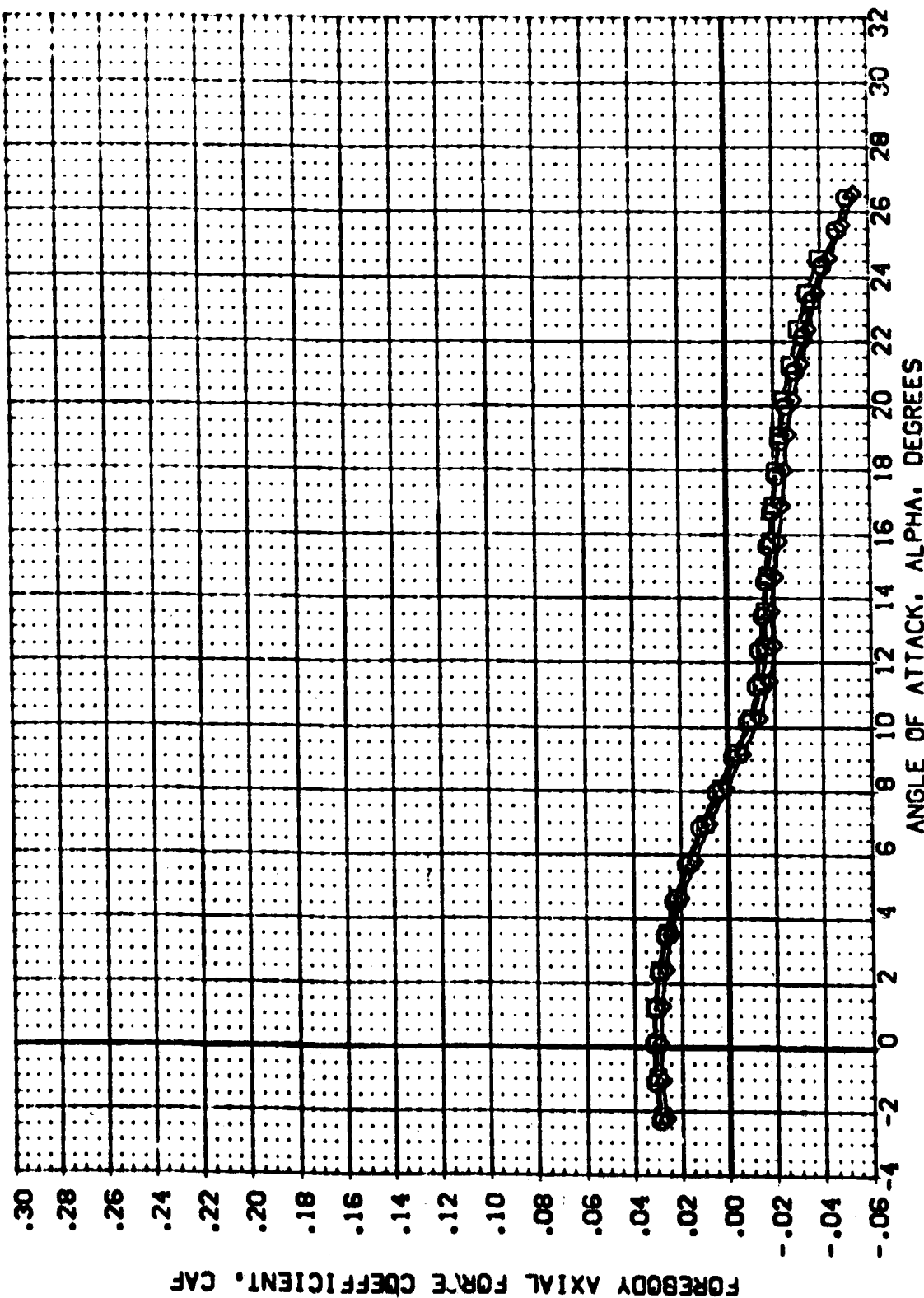
BODY FLAP EFFECTIVENESS

$$[A]_{MACH} = .6:$$

DATA SET SYMBOL: Q10
 CONFIGURATION DESCRIPTION: 0468 B22 07 M4 F5 V111 E23 V7 R5
 0468 B22 07 M4 F5 V111 E23 V7 R5
 0468 B22 07 M4 F5 V111 E23 V7 R5

ELEVON: 0000
 RUFLR: 24.920
 BFAP: 14.250
 RVL: 7.000

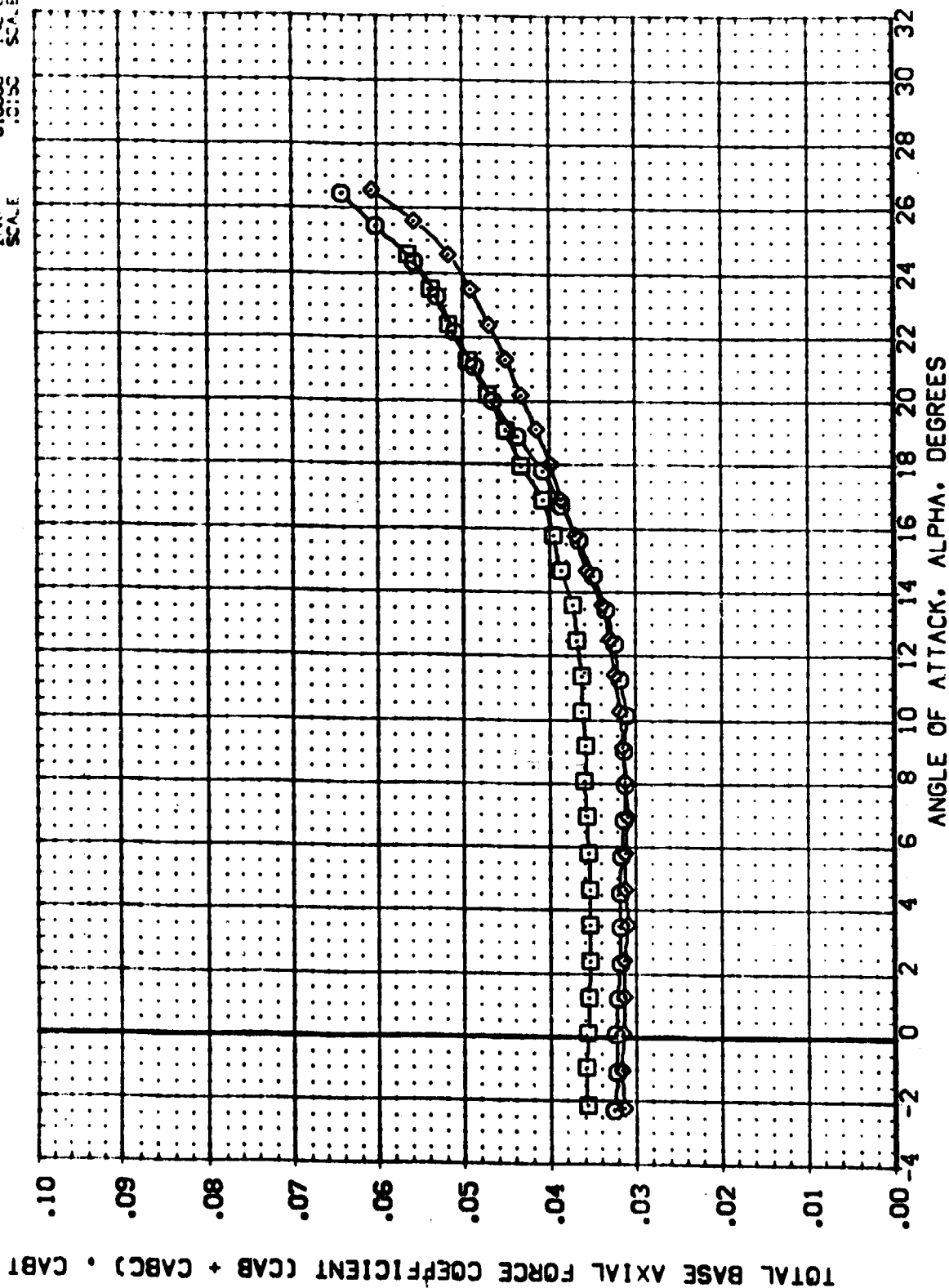
REFERENCE INFORMATION:
 SREF: 6053
 REF: 7.000
 BREF: 7.000
 XREF: 14.250
 YREF: 14.250
 ZREF: 6.000
 SCALE: 0.000



BODY FLAP EFFECTIVENESS

(A)MACH = .6:

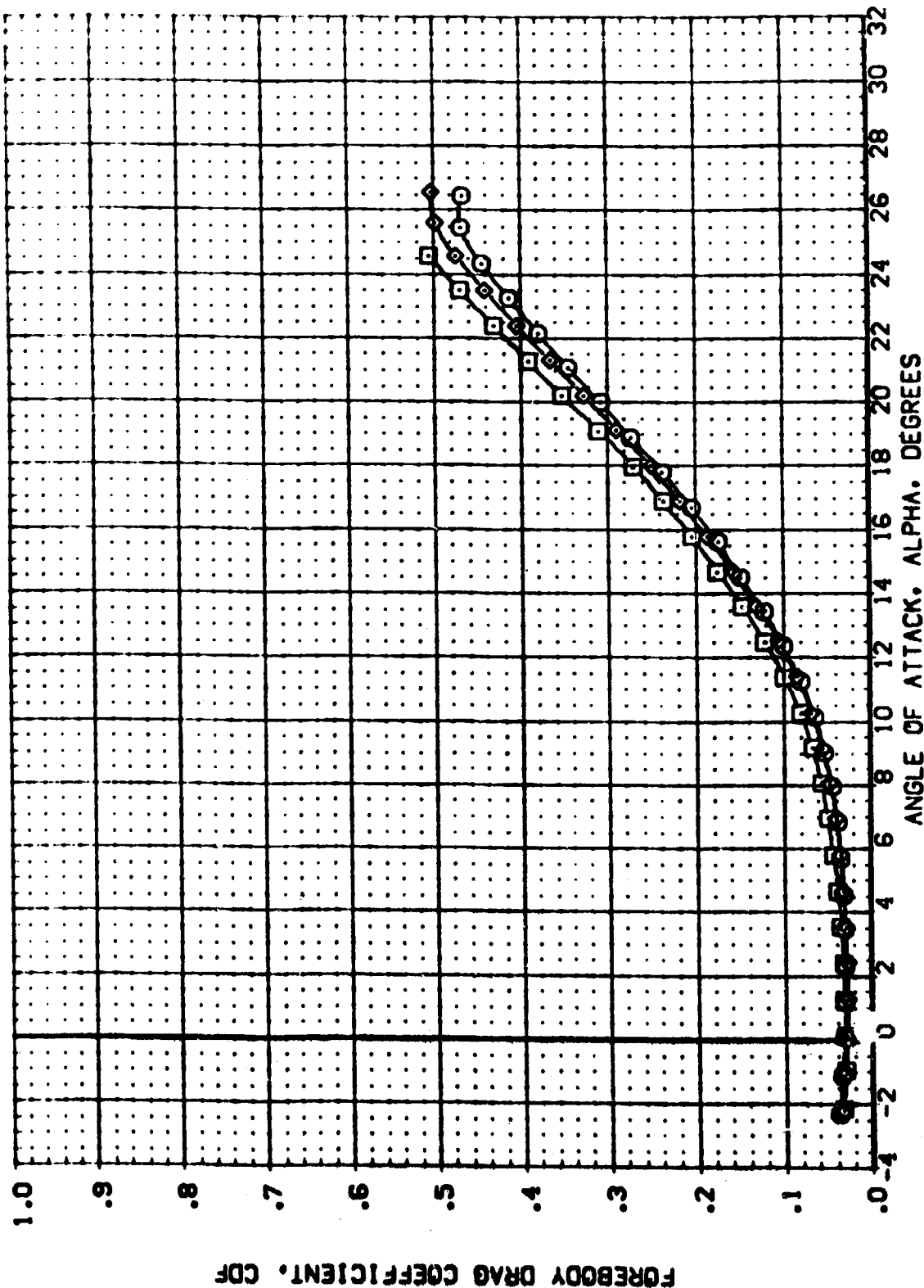
DATA SET SYMB	CONFIDENCE	DESCRIPTION	ELEVON	ROTOR	BLAP	RAVL	REFERENCE INFORMATION
000001	0000	0000	000	24.920	-14.750	7.000	0000
000002	0000	0000	000	24.920	-13.750	7.000	0000
000003	0000	0000	000	24.920	-12.750	7.000	0000
000004	0000	0000	000	24.920	-11.750	7.000	0000
000005	0000	0000	000	24.920	-10.750	7.000	0000
000006	0000	0000	000	24.920	-9.750	7.000	0000
000007	0000	0000	000	24.920	-8.750	7.000	0000
000008	0000	0000	000	24.920	-7.750	7.000	0000
000009	0000	0000	000	24.920	-6.750	7.000	0000
000010	0000	0000	000	24.920	-5.750	7.000	0000
000011	0000	0000	000	24.920	-4.750	7.000	0000
000012	0000	0000	000	24.920	-3.750	7.000	0000
000013	0000	0000	000	24.920	-2.750	7.000	0000
000014	0000	0000	000	24.920	-1.750	7.000	0000
000015	0000	0000	000	24.920	-0.750	7.000	0000
000016	0000	0000	000	24.920	0.250	7.000	0000
000017	0000	0000	000	24.920	1.250	7.000	0000
000018	0000	0000	000	24.920	2.250	7.000	0000
000019	0000	0000	000	24.920	3.250	7.000	0000
000020	0000	0000	000	24.920	4.250	7.000	0000
000021	0000	0000	000	24.920	5.250	7.000	0000
000022	0000	0000	000	24.920	6.250	7.000	0000
000023	0000	0000	000	24.920	7.250	7.000	0000
000024	0000	0000	000	24.920	8.250	7.000	0000
000025	0000	0000	000	24.920	9.250	7.000	0000
000026	0000	0000	000	24.920	10.250	7.000	0000
000027	0000	0000	000	24.920	11.250	7.000	0000
000028	0000	0000	000	24.920	12.250	7.000	0000
000029	0000	0000	000	24.920	13.250	7.000	0000
000030	0000	0000	000	24.920	14.250	7.000	0000
000031	0000	0000	000	24.920	15.250	7.000	0000
000032	0000	0000	000	24.920	16.250	7.000	0000
000033	0000	0000	000	24.920	17.250	7.000	0000
000034	0000	0000	000	24.920	18.250	7.000	0000
000035	0000	0000	000	24.920	19.250	7.000	0000
000036	0000	0000	000	24.920	20.250	7.000	0000
000037	0000	0000	000	24.920	21.250	7.000	0000
000038	0000	0000	000	24.920	22.250	7.000	0000
000039	0000	0000	000	24.920	23.250	7.000	0000
000040	0000	0000	000	24.920	24.250	7.000	0000
000041	0000	0000	000	24.920	25.250	7.000	0000
000042	0000	0000	000	24.920	26.250	7.000	0000
000043	0000	0000	000	24.920	27.250	7.000	0000
000044	0000	0000	000	24.920	28.250	7.000	0000
000045	0000	0000	000	24.920	29.250	7.000	0000
000046	0000	0000	000	24.920	30.250	7.000	0000
000047	0000	0000	000	24.920	31.250	7.000	0000
000048	0000	0000	000	24.920	32.250	7.000	0000
000049	0000	0000	000	24.920	33.250	7.000	0000
000050	0000	0000	000	24.920	34.250	7.000	0000
000051	0000	0000	000	24.920	35.250	7.000	0000
000052	0000	0000	000	24.920	36.250	7.000	0000
000053	0000	0000	000	24.920	37.250	7.000	0000
000054	0000	0000	000	24.920	38.250	7.000	0000
000055	0000	0000	000	24.920	39.250	7.000	0000
000056	0000	0000	000	24.920	40.250	7.000	0000
000057	0000	0000	000	24.920	41.250	7.000	0000
000058	0000	0000	000	24.920	42.250	7.000	0000
000059	0000	0000	000	24.920	43.250	7.000	0000
000060	0000	0000	000	24.920	44.250	7.000	0000
000061	0000	0000	000	24.920	45.250	7.000	0000
000062	0000	0000	000	24.920	46.250	7.000	0000
000063	0000	0000	000	24.920	47.250	7.000	0000
000064	0000	0000	000	24.920	48.250	7.000	0000
000065	0000	0000	000	24.920	49.250	7.000	0000
000066	0000	0000	000	24.920	50.250	7.000	0000
000067	0000	0000	000	24.920	51.250	7.000	0000
000068	0000	0000	000	24.920	52.250	7.000	0000
000069	0000	0000	000	24.920	53.250	7.000	0000
000070	0000	0000	000	24.920	54.250	7.000	0000
000071	0000	0000	000	24.920	55.250	7.000	0000
000072	0000	0000	000	24.920	56.250	7.000	0000
000073	0000	0000	000	24.920	57.250	7.000	0000
000074	0000	0000	000	24.920	58.250	7.000	0000
000075	0000	0000	000	24.920	59.250	7.000	0000
000076	0000	0000	000	24.920	60.250	7.000	0000
000077	0000	0000	000	24.920	61.250	7.000	0000
000078	0000	0000	000	24.920	62.250	7.000	0000
000079	0000	0000	000	24.920	63.250	7.000	0000
000080	0000	0000	000	24.920	64.250	7.000	0000
000081	0000	0000	000	24.920	65.250	7.000	0000
000082	0000	0000	000	24.920	66.250	7.000	0000
000083	0000	0000	000	24.920	67.250	7.000	0000
000084	0000	0000	000	24.920	68.250	7.000	0000
000085	0000	0000	000	24.920	69.250	7.000	0000
000086	0000	0000	000	24.920	70.250	7.000	0000
000087	0000	0000	000	24.920	71.250	7.000	0000
000088	0000	0000	000	24.920	72.250	7.000	0000
000089	0000	0000	000	24.920	73.250	7.000	0000
000090	0000	0000	000	24.920	74.250	7.000	0000
000091	0000	0000	000	24.920	75.250	7.000	0000
000092	0000	0000	000	24.920	76.250	7.000	0000
000093	0000	0000	000	24.920	77.250	7.000	0000
000094	0000	0000	000	24.920	78.250	7.000	0000
000095	0000	0000	000	24.920	79.250	7.000	0000
000096	0000	0000	000	24.920	80.250	7.000	0000
000097	0000	0000	000	24.920	81.250	7.000	0000
000098	0000	0000	000	24.920	82.250	7.000	0000
000099	0000	0000	000	24.920	83.250	7.000	0000
000100	0000	0000	000	24.920	84.250	7.000	0000



BODY FLAP EFFECTIVENESS

(A)MACH = .61

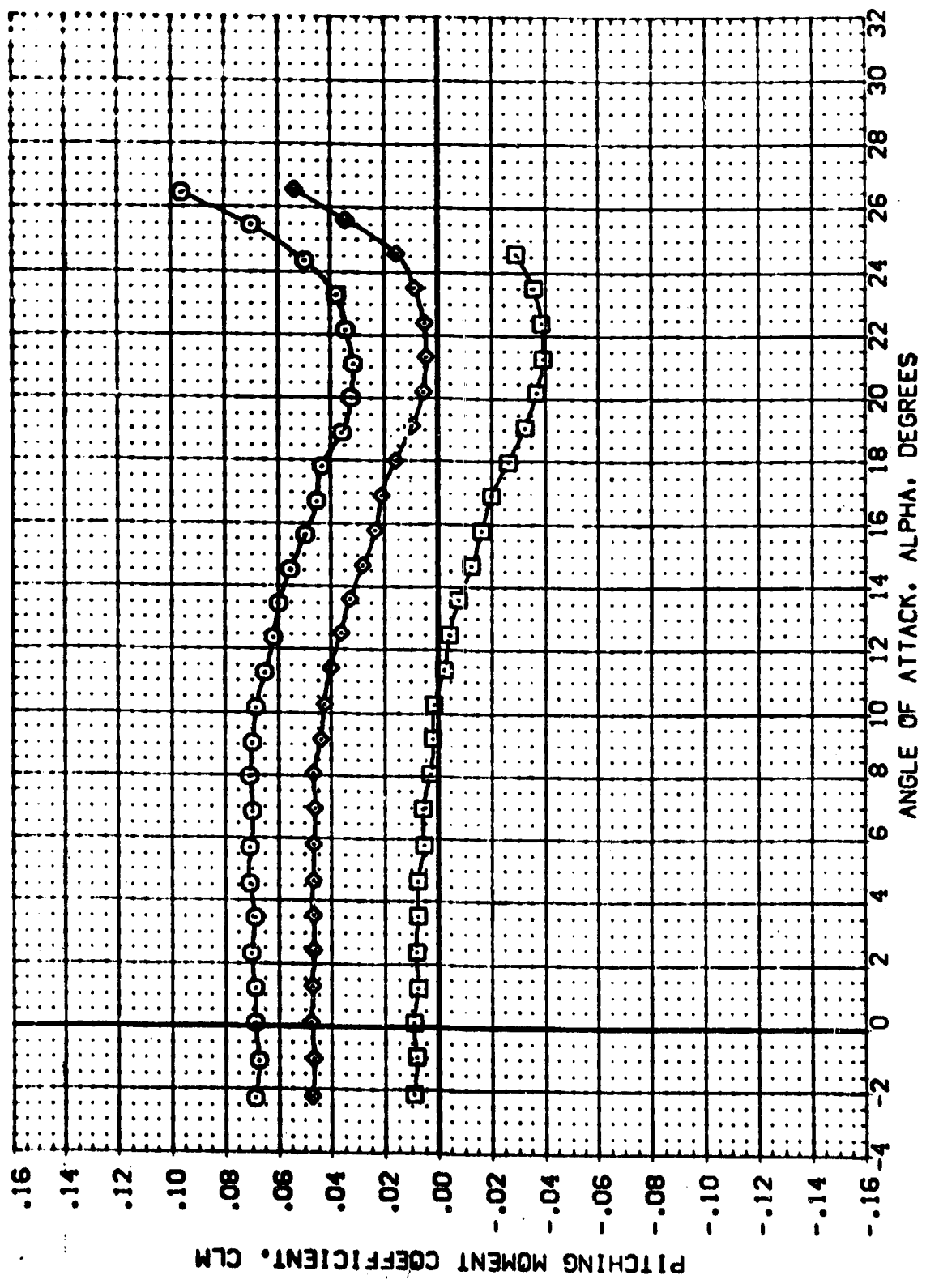
DATA SET: SYMBO		CONFIGURATION DESCRIPTION		ELEVON		R/D/LR		BFLAP		R/V/L		REFERENCE INFORMATION	
000001	0	CAS8 B22	E7 M4 F5 VII	E23 V7 RS	.000	24.920	-14.250	7.000	SREF	6053	5999999	5	
000002	0	CAS8 B22	E7 M4 F5 VII	E23 V7 RS	.000	24.920	-13.750	7.000	REF	7.000	5999999	5	
000003	0	CAS8 B22	E7 M4 F5 VII	E23 V7 RS	.000	24.920	-13.750	7.000	REF	14.000	5999999	5	
									REF	12.671	5999999	5	
									REF	6.000	5999999	5	
									REF	6.000	5999999	5	
									REF	6.000	5999999	5	
									REF	6.000	5999999	5	
									REF	6.000	5999999	5	
									REF	6.000	5999999	5	



BODY FLAP EFFECTIVENESS

(A)MACH = .61

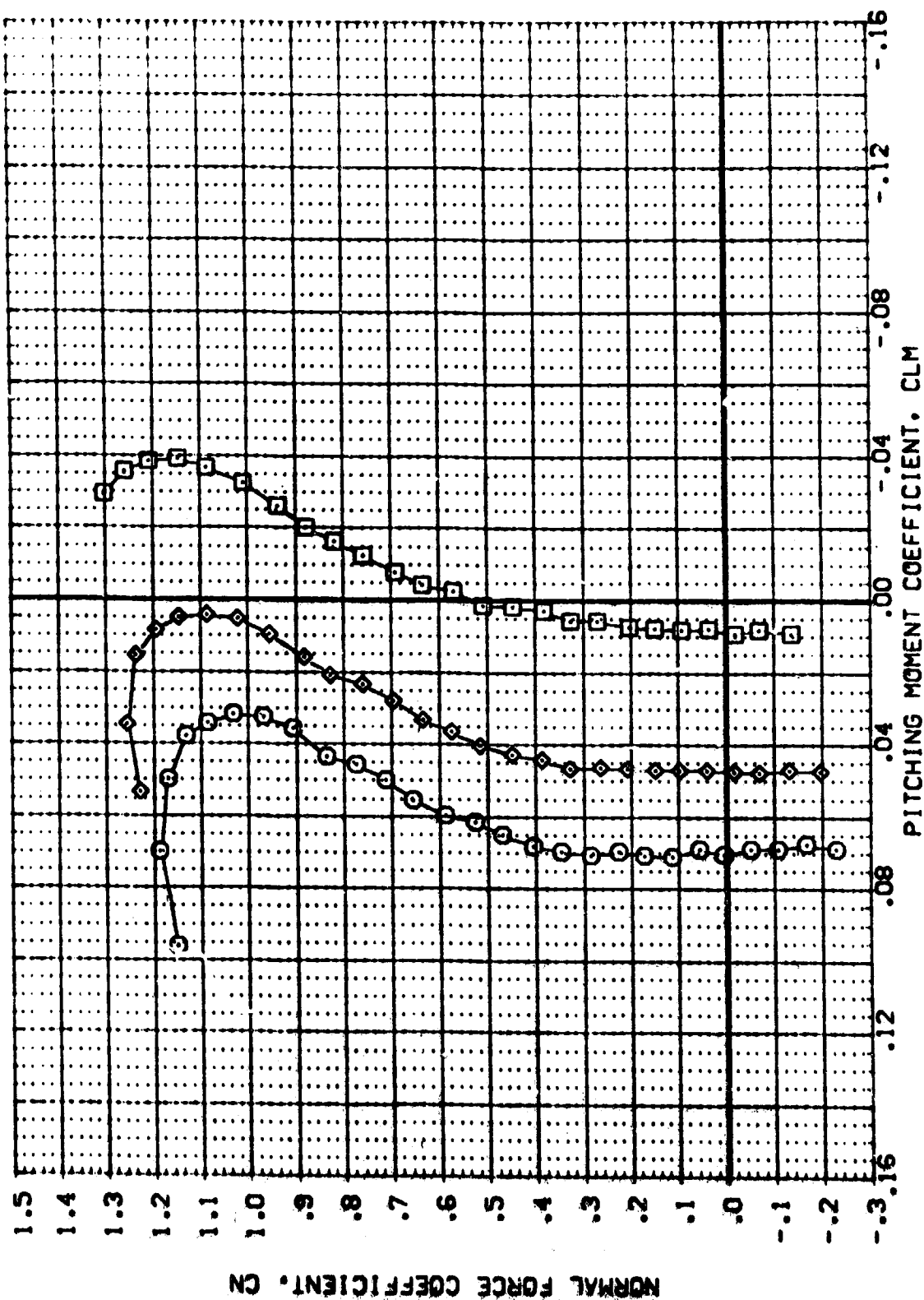
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROOT R	BLAP	RV/L	REFERENCE IN SP-115
00001	2488 822 27 24 25 1111 123 17 85	.000	24.820	14.250	7.000	653
00002	2488 822 27 24 25 1111 123 17 85	.000	24.820	13.750	7.100	700
00003	2488 822 27 24 25 1111 123 17 85	.000	24.820	.000	7.100	700



BODY FLAP EFFECTIVENESS

(A)MACH = .61

REFERENCE	NO. OF DATA
SREF	653
REF	7
REF	14
XREF	12
YREF	6
ZREF	6
SCALE	6

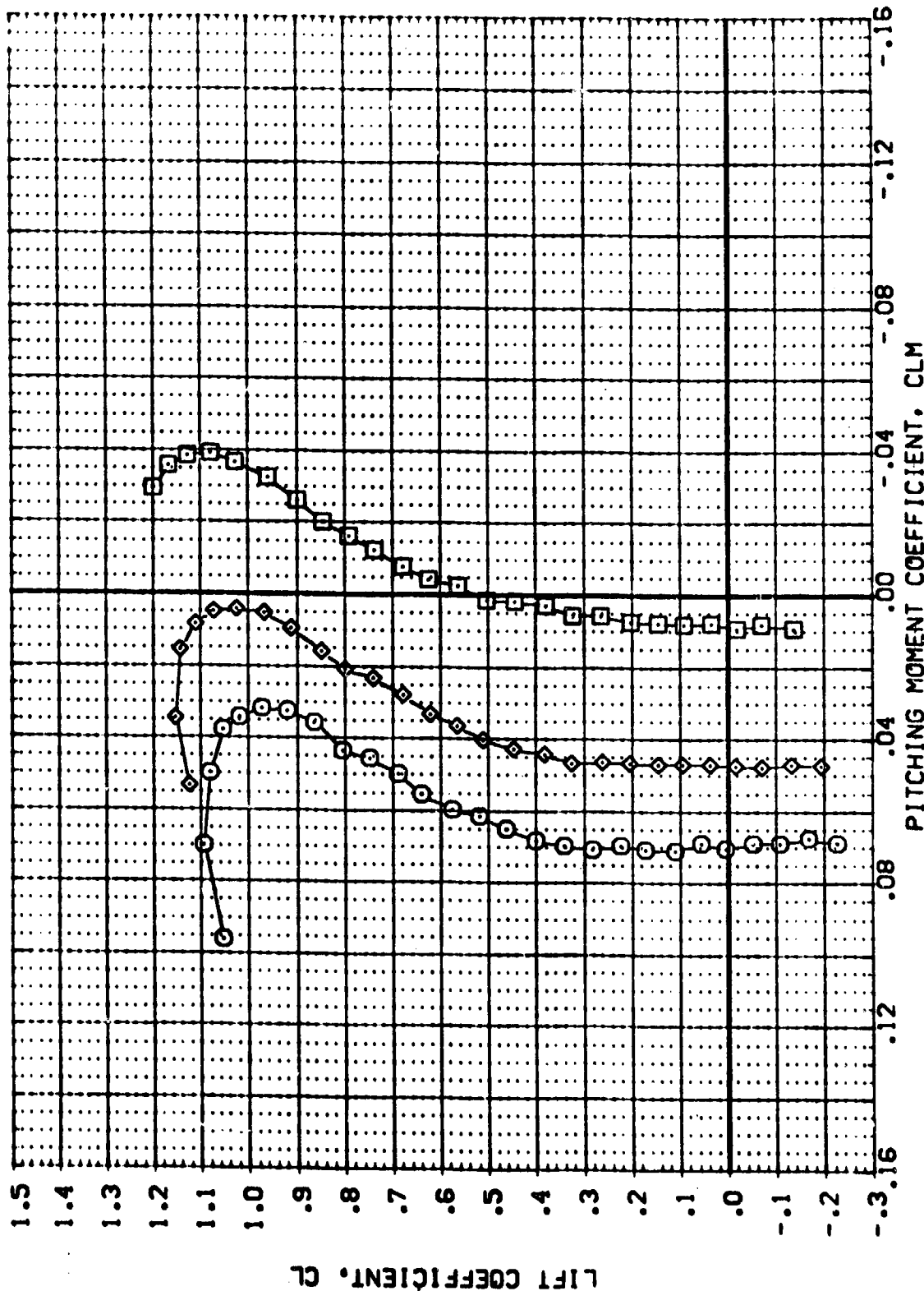


BODY FLAP EFFECTIVENESS

CAJMACH = 0.00

PAGE 33

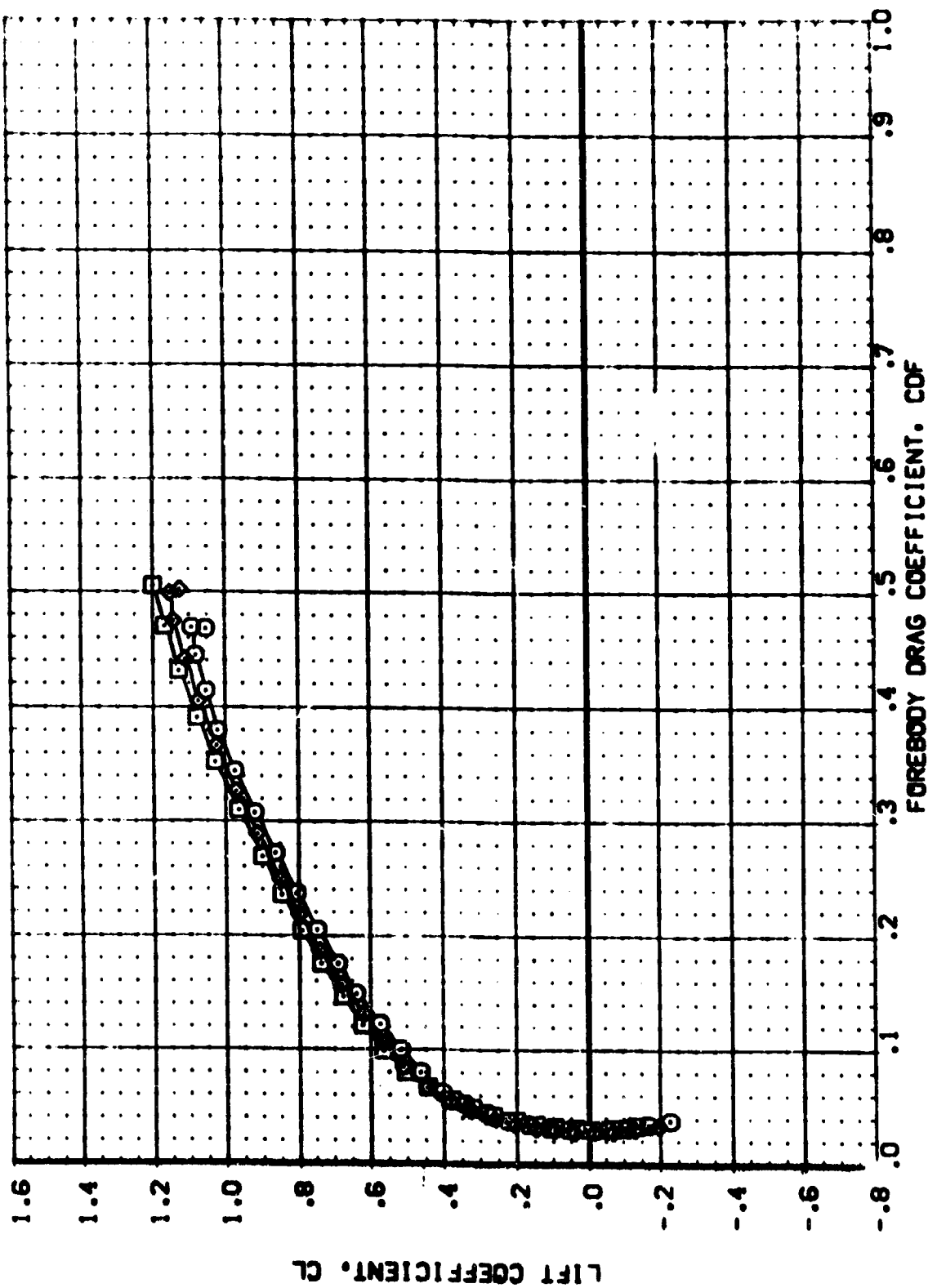
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROOT LR	BT LAP	RV/L	REFERENCE INFORMATION
000001	(1)	SA88 B23 C7 M4 FS V111 E23 V7 RS	.000	24.920	-14.250	7.000	SREF 6053
000002	(1)	SA88 B23 C7 M4 FS V111 E23 V7 RS	.000	24.920	13.750	7.100	LREF 7.022
000003	(1)	SA88 B23 C7 M4 FS V111 E23 V7 RS	.000	24.920	.000	7.100	BREF 14.502
							XPROP 2.971
							YPROP 6.000
							ZPROP 6.000
							SCALE 10.00



BODY FLAP EFFECTIVENESS

(A)MACH = .61

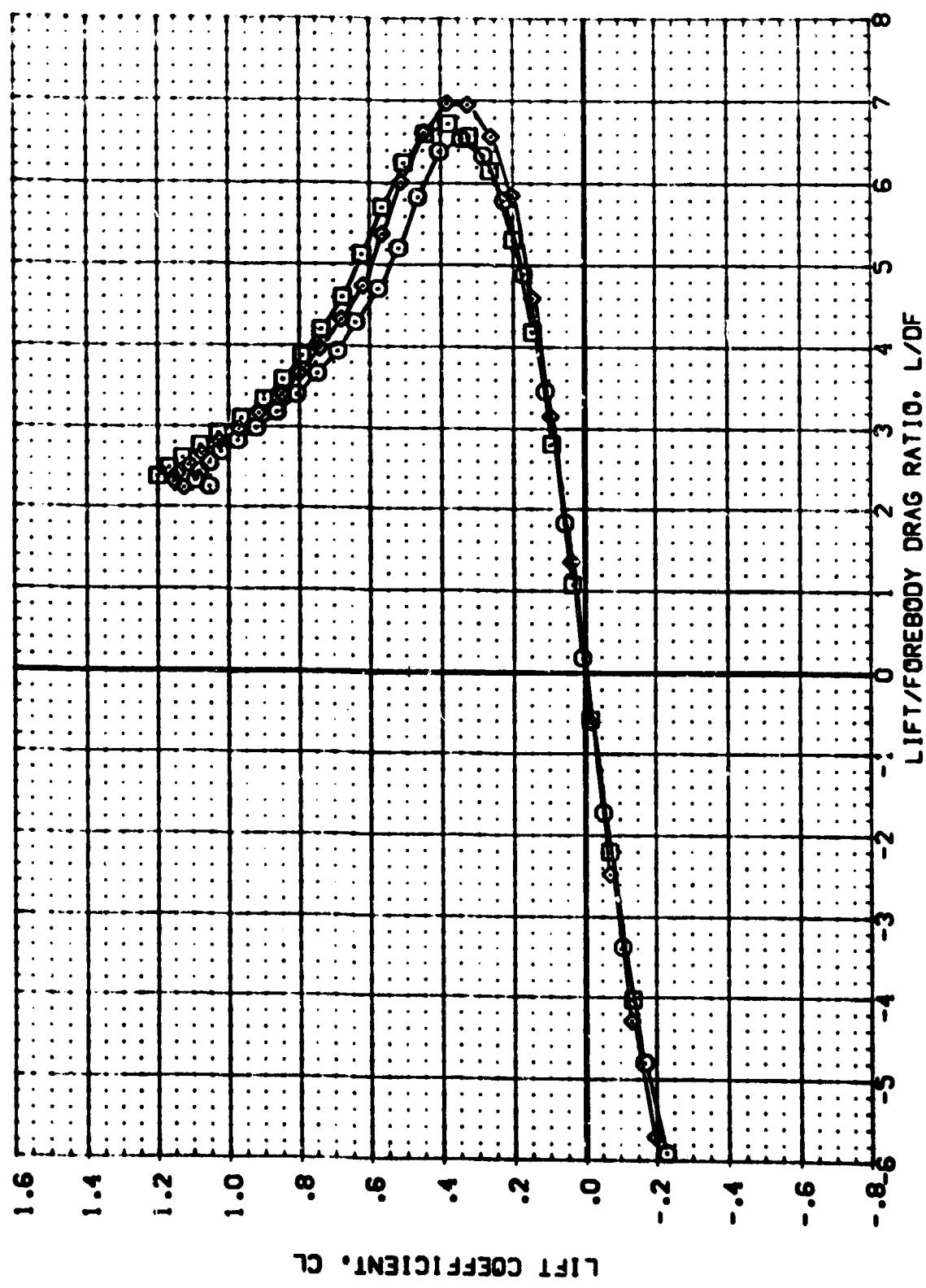
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	RUD/LR	BLAP	RVL	REFERENCE INFORMATION
CD0001	□	2488 B22 C7 M4 FS V111 E23 V7 R5	.000	24.920	-14.250	7.000	SREF 6053
CD0077	◇	2488 B22 C7 M4 FS V111 E23 V7 R5	.000	24.920	13.750	7.000	REF 7.122
CD0072	◇	2488 B22 C7 M4 FS V111 E23 V7 R5	.000	24.920	.000	7.000	BREF 14.052
							XREF 12.611
							VREF .000
							WREF .000
							SCALE 6.0150



BODY FLAP EFFECTIVENESS

(A)MACH = .6:

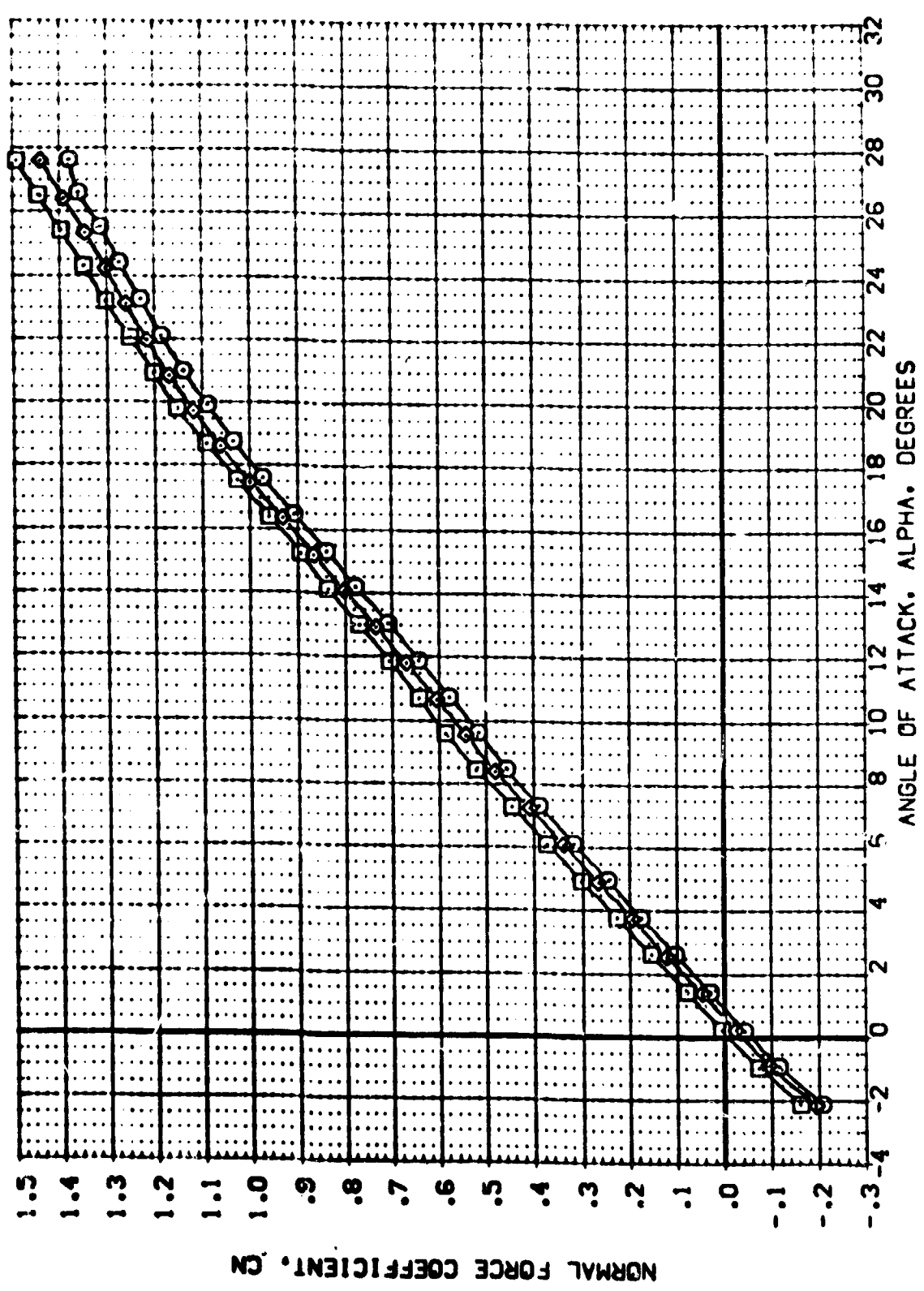
DATA SET SYMB	CONFIGURATION DESCRIPTION	ELEVON	R/D OF R	BLAP	REV.	REFERENCE INFORMATION
000001	0158 B22	000	24.825	-14.25	7.000	SPF 6.253
000002	0158 B22	000	24.825	-13.25	7.000	LRF 7.000
000003	0158 B22	000	24.825	-13.25	7.000	BRF 14.000
000004	0158 B22	000	24.825	-13.25	7.000	VRG 12.600
000005	0158 B22	000	24.825	-13.25	7.000	VRG 6.000
000006	0158 B22	000	24.825	-13.25	7.000	SCALE 6.000



BODY FLAP EFFECTIVENESS

(A)MACH = .61

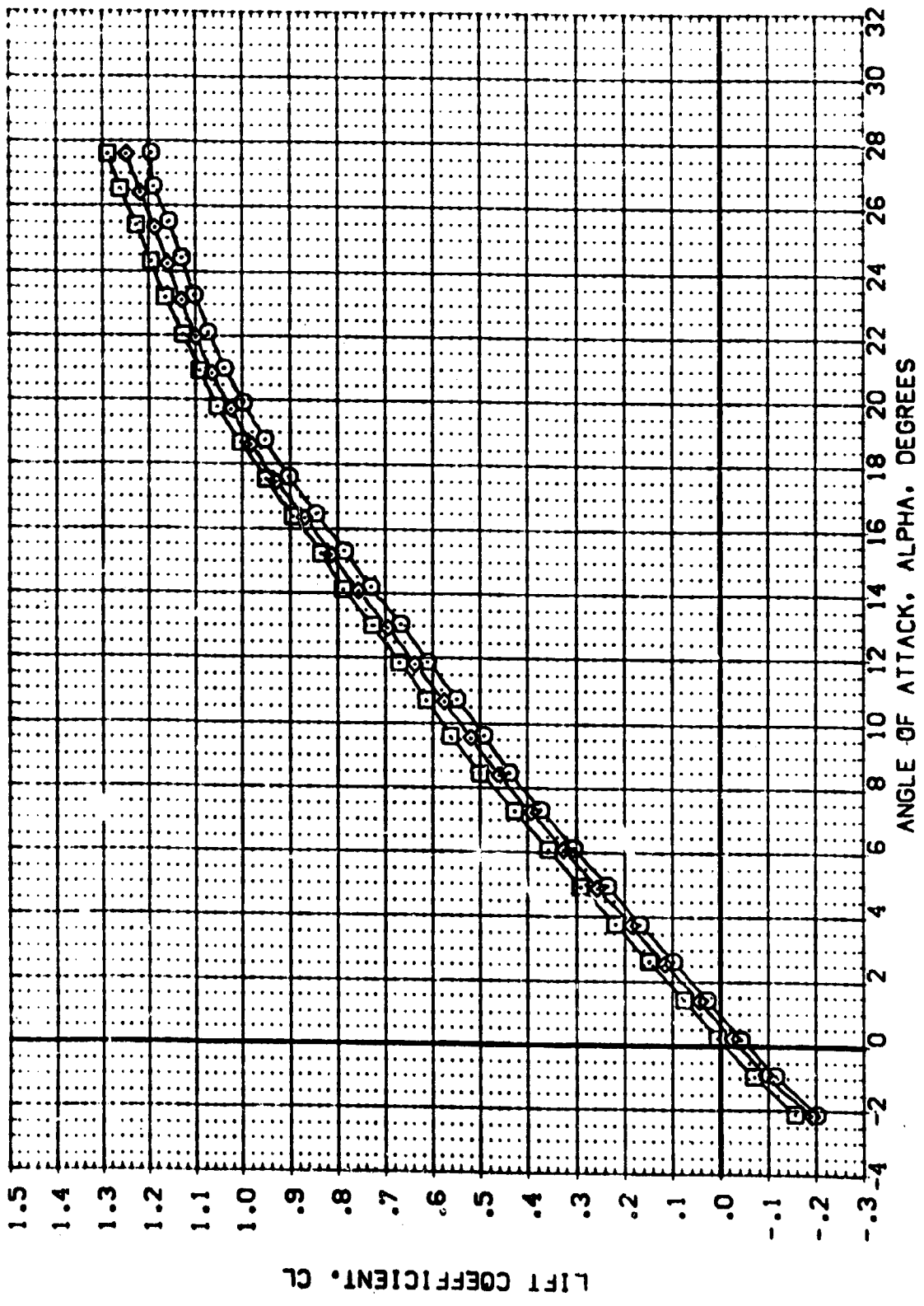
DATA SET: SYMBOL	CONV: 022	DESCRIPTION: 023	REF: 023	REF: 023
02002	022	023	023	023
02003	022	023	023	023
02004	022	023	023	023
02005	022	023	023	023
02006	022	023	023	023
02007	022	023	023	023
02008	022	023	023	023
02009	022	023	023	023
02010	022	023	023	023
02011	022	023	023	023
02012	022	023	023	023
02013	022	023	023	023
02014	022	023	023	023
02015	022	023	023	023
02016	022	023	023	023
02017	022	023	023	023
02018	022	023	023	023
02019	022	023	023	023
02020	022	023	023	023
02021	022	023	023	023
02022	022	023	023	023
02023	022	023	023	023
02024	022	023	023	023
02025	022	023	023	023
02026	022	023	023	023
02027	022	023	023	023
02028	022	023	023	023
02029	022	023	023	023
02030	022	023	023	023
02031	022	023	023	023
02032	022	023	023	023
02033	022	023	023	023
02034	022	023	023	023
02035	022	023	023	023
02036	022	023	023	023
02037	022	023	023	023
02038	022	023	023	023
02039	022	023	023	023
02040	022	023	023	023
02041	022	023	023	023
02042	022	023	023	023
02043	022	023	023	023
02044	022	023	023	023
02045	022	023	023	023
02046	022	023	023	023
02047	022	023	023	023
02048	022	023	023	023
02049	022	023	023	023
02050	022	023	023	023
02051	022	023	023	023
02052	022	023	023	023
02053	022	023	023	023
02054	022	023	023	023
02055	022	023	023	023
02056	022	023	023	023
02057	022	023	023	023
02058	022	023	023	023
02059	022	023	023	023
02060	022	023	023	023
02061	022	023	023	023
02062	022	023	023	023
02063	022	023	023	023
02064	022	023	023	023
02065	022	023	023	023
02066	022	023	023	023
02067	022	023	023	023
02068	022	023	023	023
02069	022	023	023	023
02070	022	023	023	023
02071	022	023	023	023
02072	022	023	023	023
02073	022	023	023	023
02074	022	023	023	023
02075	022	023	023	023
02076	022	023	023	023
02077	022	023	023	023
02078	022	023	023	023
02079	022	023	023	023
02080	022	023	023	023
02081	022	023	023	023
02082	022	023	023	023
02083	022	023	023	023
02084	022	023	023	023
02085	022	023	023	023
02086	022	023	023	023
02087	022	023	023	023
02088	022	023	023	023
02089	022	023	023	023
02090	022	023	023	023
02091	022	023	023	023
02092	022	023	023	023
02093	022	023	023	023
02094	022	023	023	023
02095	022	023	023	023
02096	022	023	023	023
02097	022	023	023	023
02098	022	023	023	023
02099	022	023	023	023
02100	022	023	023	023



BODY FLAP EFFECTIVENESS

(ACHACH = 1.2)

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ELEV	R/D, R	BF, AP	RM/L	REFERENCE INFORMATION
00001	00001	000	54.920	14.750	7.000	SREF 6053
00002	00002	000	54.920	13.750	7.000	LAL 7.122
00003	00003	000	54.920	13.750	7.000	BREF 14.617
						XREF 12.617
						YREF 6.000
						ZREF 6.000
						SCALE 6.000

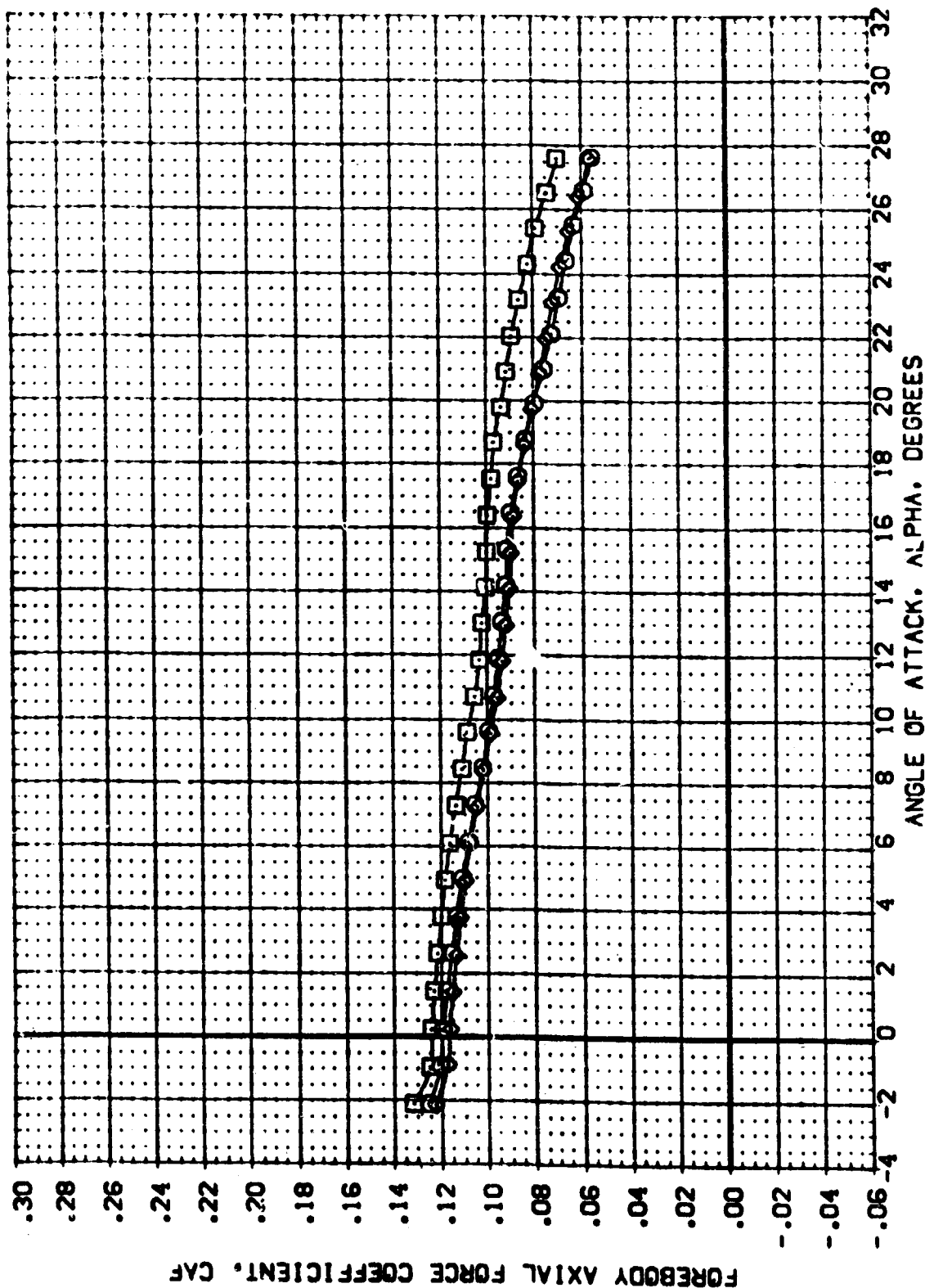


BODY FLAP EFFECTIVENESS

(A)MACH = 1.21

DATA SET	SYMBOL	CONFIDENCE	DURATION	DESCRIPTION
CDRC22	□	822	74	F5 V111 E23 V7 R5
CDRC24	□	822	74	F5 V111 E23 V7 R5
CDRC23	◇	822	74	F5 V111 E23 V7 R5

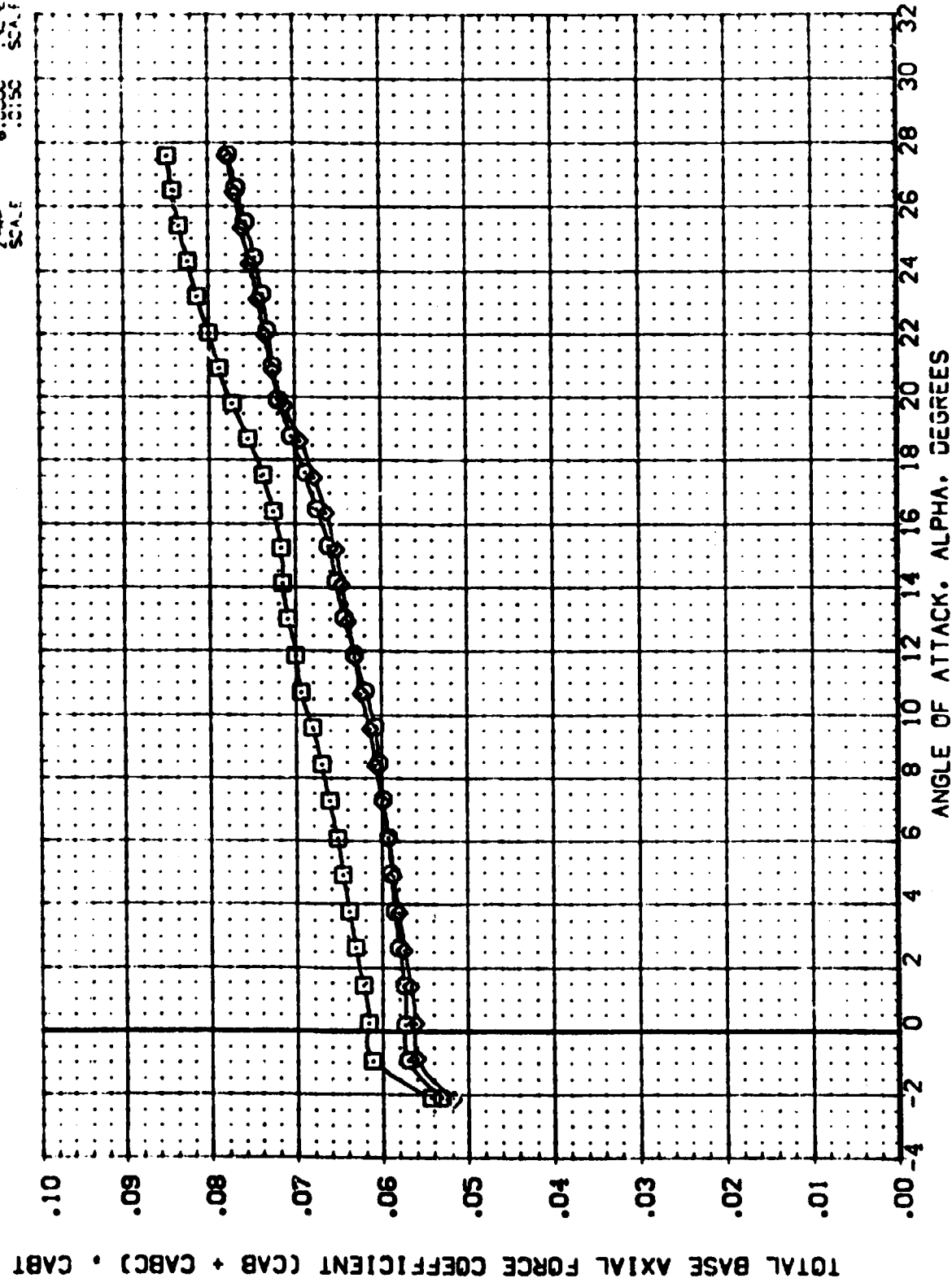
ELEVATION	ROD FLR	BLFAP	FWL	REFERENCE IN CHARGE
0.000	54.920	-14.200	7.000	5.555555
0.000	54.920	-13.200	7.000	5.555555
0.000	54.920	-12.200	7.000	5.555555
0.000	54.920	-11.200	7.000	5.555555
0.000	54.920	-10.200	7.000	5.555555
0.000	54.920	-9.200	7.000	5.555555
0.000	54.920	-8.200	7.000	5.555555
0.000	54.920	-7.200	7.000	5.555555
0.000	54.920	-6.200	7.000	5.555555
0.000	54.920	-5.200	7.000	5.555555
0.000	54.920	-4.200	7.000	5.555555
0.000	54.920	-3.200	7.000	5.555555
0.000	54.920	-2.200	7.000	5.555555
0.000	54.920	-1.200	7.000	5.555555
0.000	54.920	0.000	7.000	5.555555



BODY FLAP EFFECTIVENESS

CALMACH = 1.2:

DATA SET	SYMBOL	CONF	IS	RA	DESCRIPTION	ELEV	ROLL	BLAP	RV	REFERENCE	INFORMATION
000001	1	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000002	2	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000003	3	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000004	4	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000005	5	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000006	6	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000007	7	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000008	8	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000009	9	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000010	10	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000011	11	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000012	12	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000013	13	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000014	14	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000015	15	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000016	16	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000017	17	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000018	18	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000019	19	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000020	20	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000021	21	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000022	22	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000023	23	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000024	24	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000025	25	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000026	26	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000027	27	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000028	28	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000029	29	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000030	30	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000031	31	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
000032	32	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000

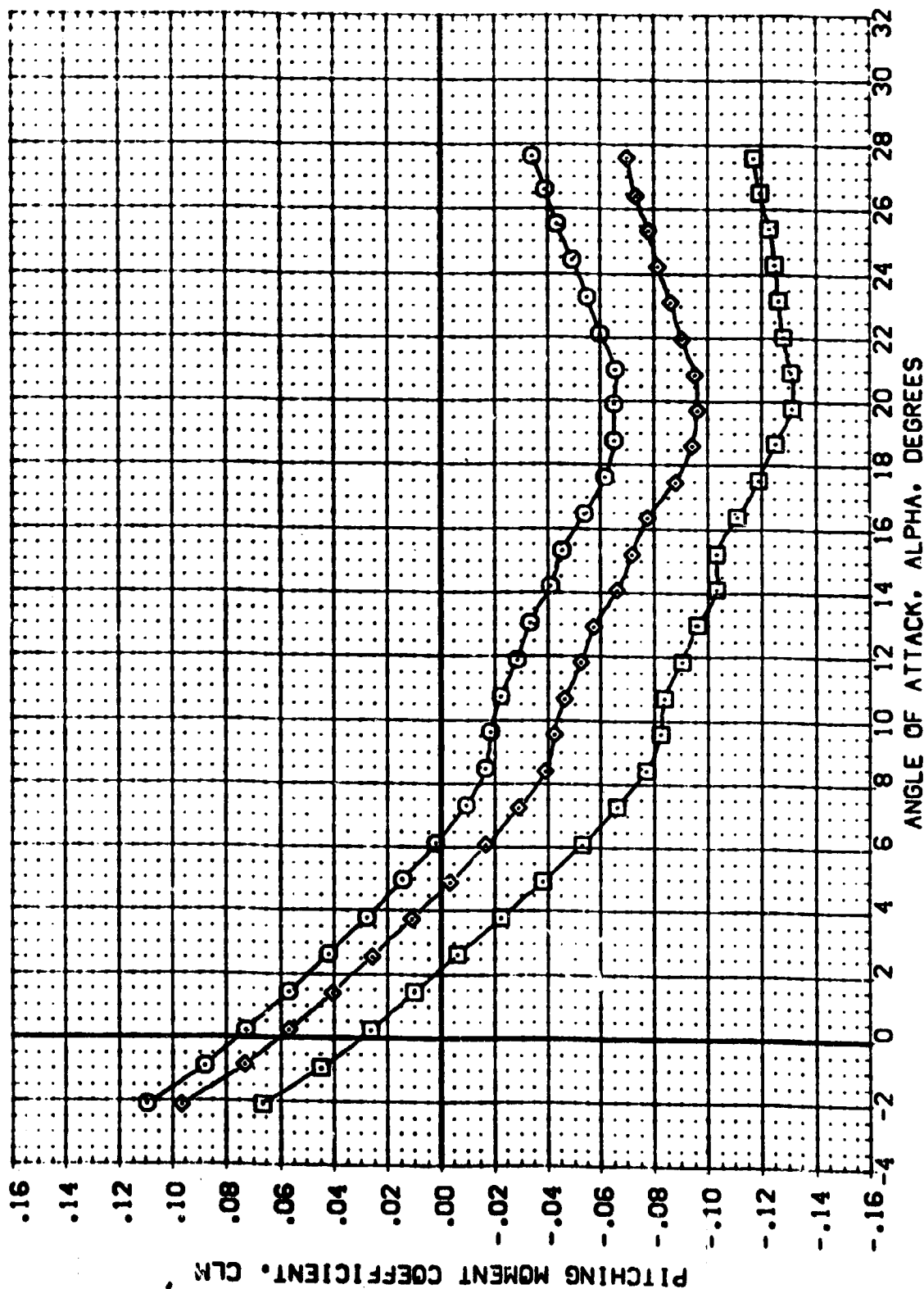


BODY FLAP EFFECTIVENESS

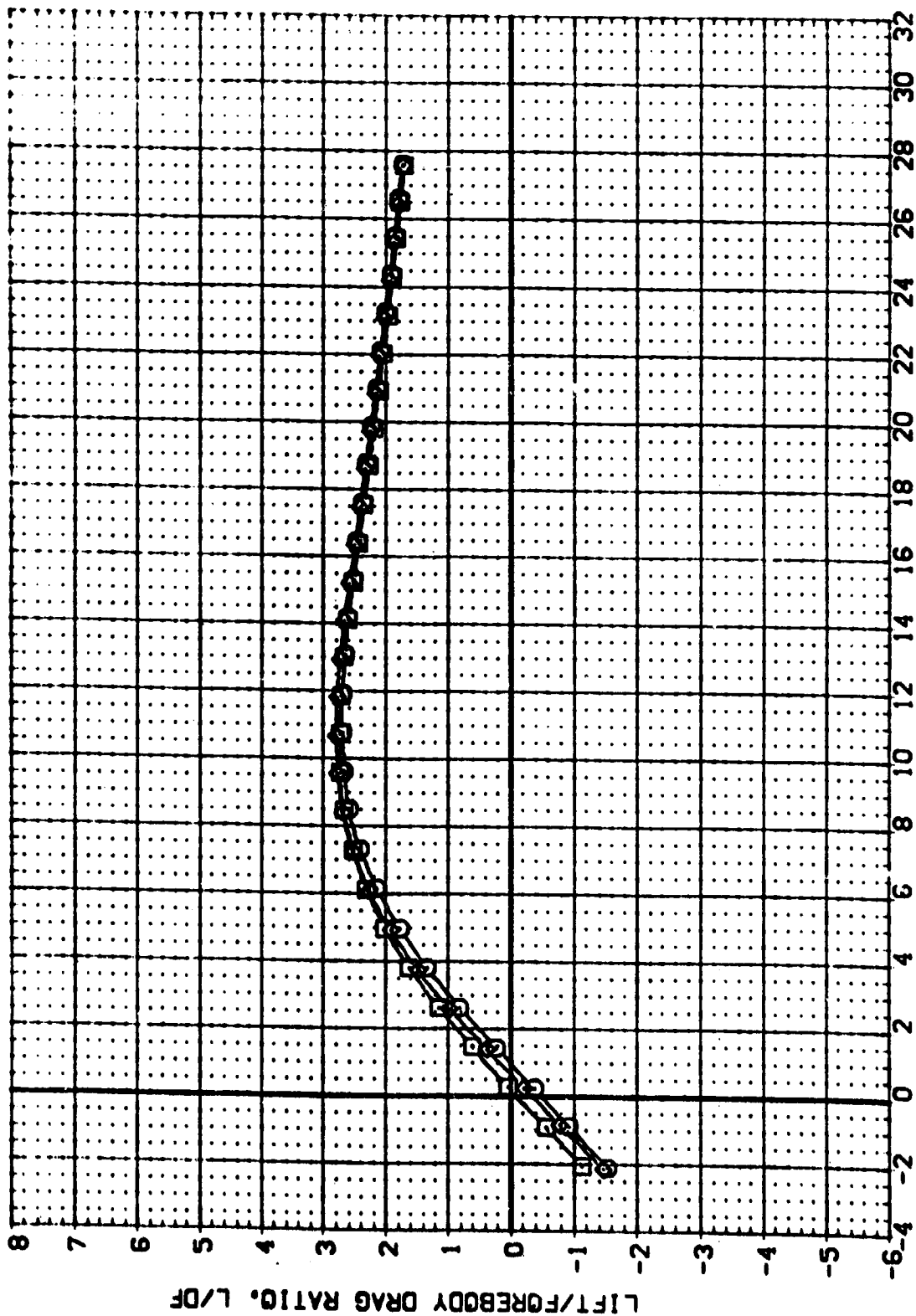
CALCULATED = 1.21

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
CDR007	0	CA68 B22 C7 M4 F5 V11	E23 V7 R5
CDR024	1	CA68 B02 C7 M4 F5 V11	E23 V7 R5
CDR073	2	CA68 B22 C7 M4 F5 V11	E23 V7 R5

ELEVON	RUFLR	BLAP	RN/	REFERENCE	INFORMATION
.000	54.920	-14.250	7.000	REF	51.500000
.000	54.920	-13.750	7.000	REF	52.500000
.000	54.920	-13.250	7.000	REF	53.500000
				PROP	54.500000
				SCALE	55.500000



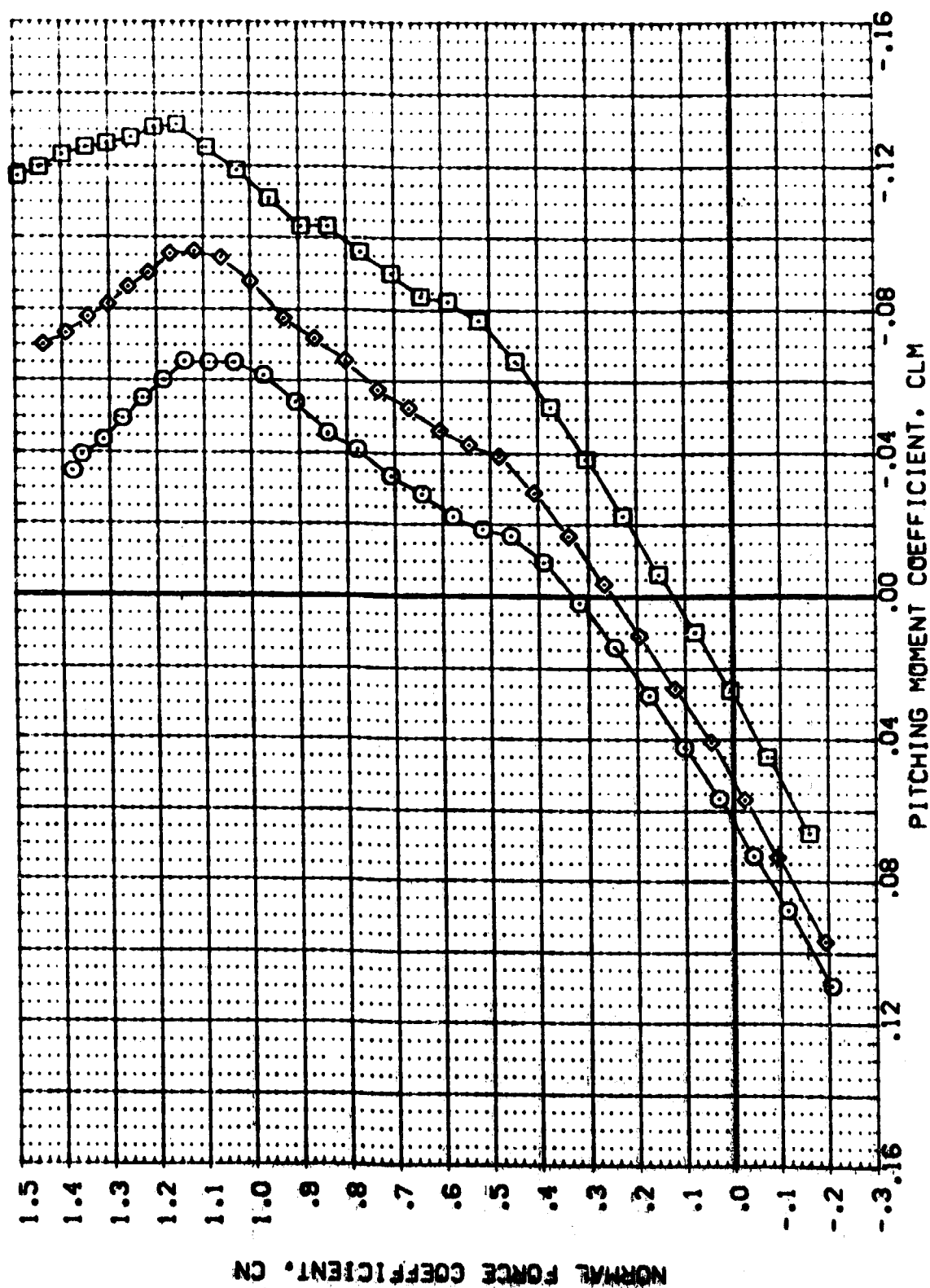
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	R/D/LR	B/LAP	R/V/L	REFERENCE	INFORMANT
(D0002)	CAS8 B22	.000	54.920	-14.250	7.000	SREF	6253
(D0004)	CAS8 B22	.000	54.920	-13.750	7.000	LREF	7.000
(D0003)	CAS8 B22	.000	54.920	.000	7.000	BREF	14.000
						XREF	12.000
						YREF	6.000
						ZREF	6.000
						SCALE	6.000



ANGLE OF ATTACK, ALPHA, DEGREES

BODY FLAP EFFECTIVENESS

(MACH = 1.21)

[illegible]

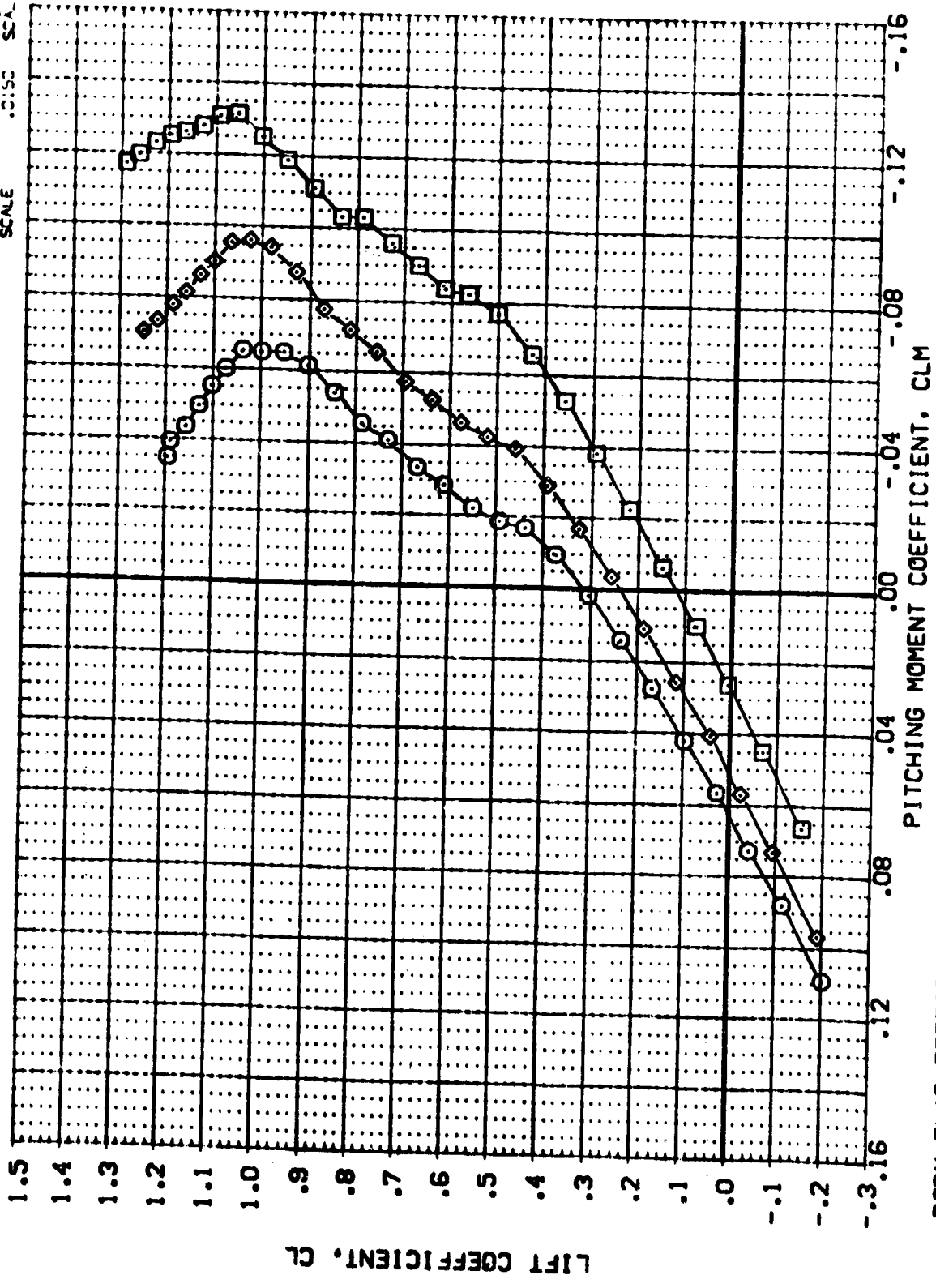
BODY FLAP EFFECTIVENESS

CASMACH = 1.2!

PAGE :42

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DPR2) C 2A68 B22 C7 V4 FS V111 E23 V7 R5
 (DPR3) D 2A68 B22 C7 V4 FS V111 E23 V7 R5
 (DPR4) D 2A68 B22 C7 V4 FS V111 E23 V7 R5

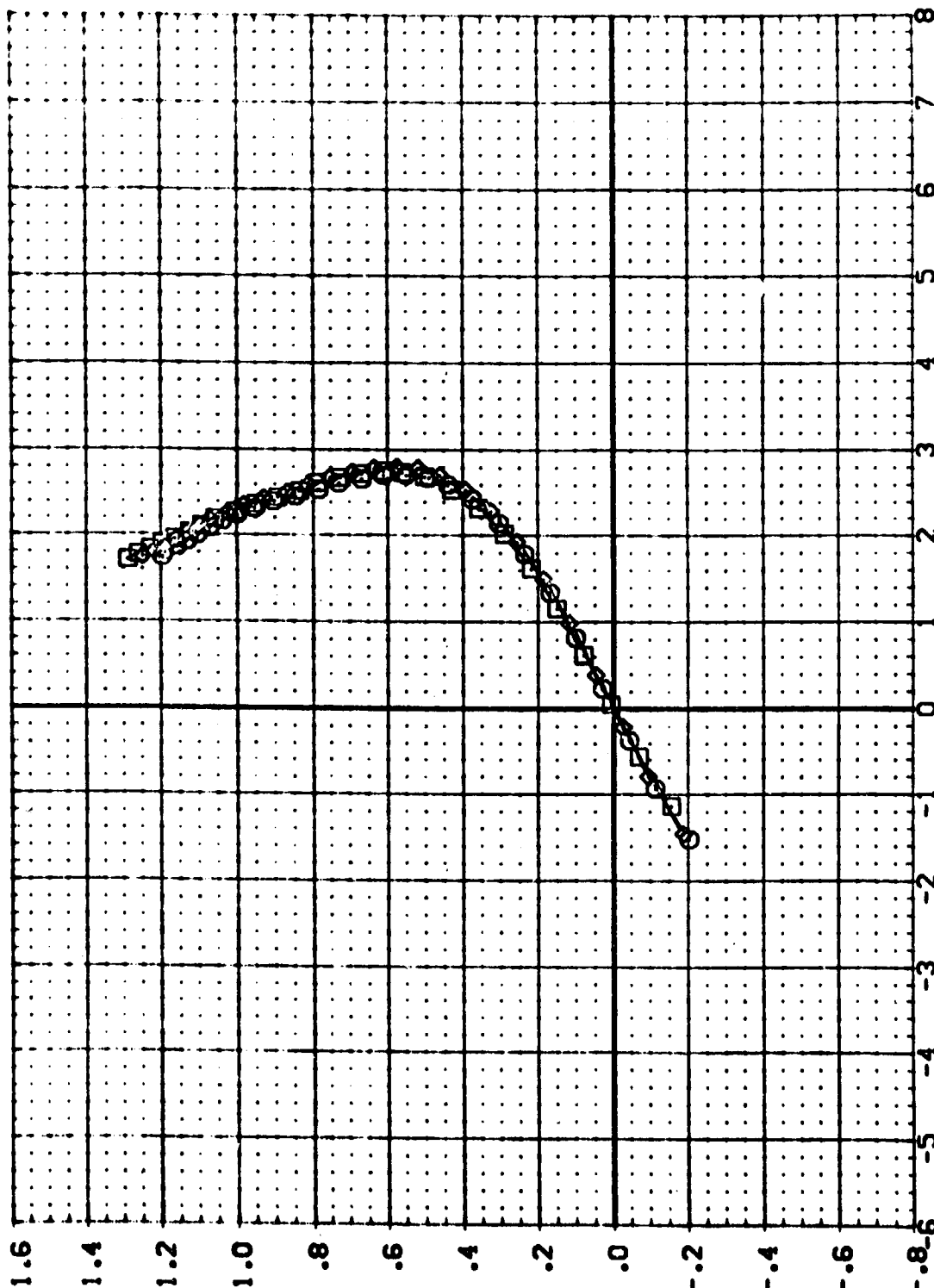
ELEVON RUDLER BFLAP RWL
 .000 54.920 -14.250 7.000
 .000 54.920 13.750 7.000
 .000 54.920 .000 7.000
 REFERENCE INFORMATION
 SREF 6253
 LREF 7.000
 BREF 14.000
 XREF 12.000
 YREF 6.000
 ZREF 12.000
 SCALE 1.000



BODY FLAP EFFECTIVENESS

CLMACH = 1.21

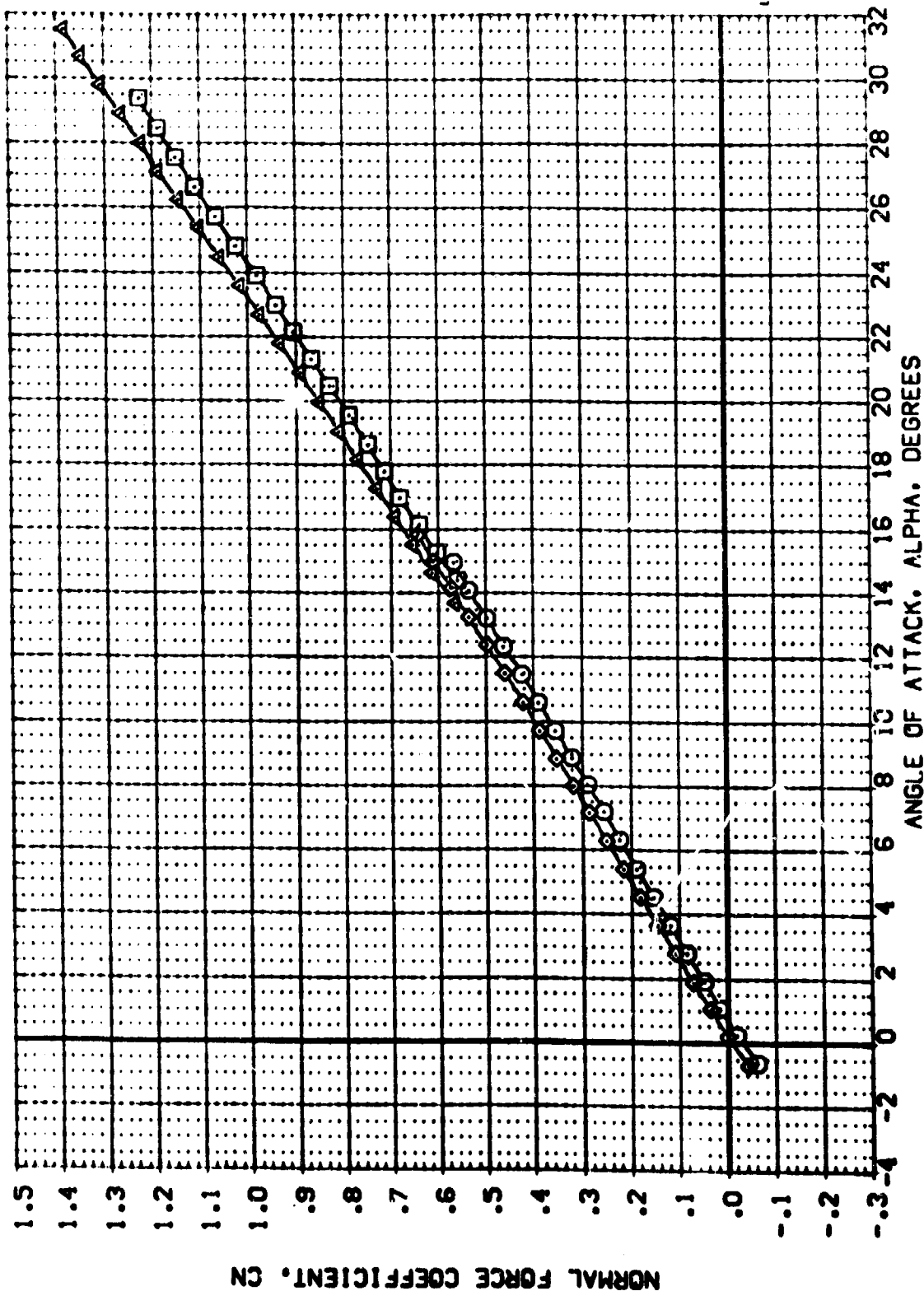
DATA SET SYMBOL	CONVIGRATION DESCRIPTION	ELEVON	R/D L/R	BFLAP	RVL	REFERENCE INFORMATION
000001	000001	0000	0000	0000	0000	0000
000002	000002	0000	0000	0000	0000	0000
000003	000003	0000	0000	0000	0000	0000
000004	000004	0000	0000	0000	0000	0000
000005	000005	0000	0000	0000	0000	0000
000006	000006	0000	0000	0000	0000	0000
000007	000007	0000	0000	0000	0000	0000
000008	000008	0000	0000	0000	0000	0000
000009	000009	0000	0000	0000	0000	0000
000010	000010	0000	0000	0000	0000	0000
000011	000011	0000	0000	0000	0000	0000
000012	000012	0000	0000	0000	0000	0000
000013	000013	0000	0000	0000	0000	0000
000014	000014	0000	0000	0000	0000	0000
000015	000015	0000	0000	0000	0000	0000
000016	000016	0000	0000	0000	0000	0000
000017	000017	0000	0000	0000	0000	0000
000018	000018	0000	0000	0000	0000	0000
000019	000019	0000	0000	0000	0000	0000
000020	000020	0000	0000	0000	0000	0000
000021	000021	0000	0000	0000	0000	0000
000022	000022	0000	0000	0000	0000	0000
000023	000023	0000	0000	0000	0000	0000
000024	000024	0000	0000	0000	0000	0000
000025	000025	0000	0000	0000	0000	0000
000026	000026	0000	0000	0000	0000	0000
000027	000027	0000	0000	0000	0000	0000
000028	000028	0000	0000	0000	0000	0000
000029	000029	0000	0000	0000	0000	0000
000030	000030	0000	0000	0000	0000	0000
000031	000031	0000	0000	0000	0000	0000
000032	000032	0000	0000	0000	0000	0000
000033	000033	0000	0000	0000	0000	0000
000034	000034	0000	0000	0000	0000	0000
000035	000035	0000	0000	0000	0000	0000
000036	000036	0000	0000	0000	0000	0000
000037	000037	0000	0000	0000	0000	0000
000038	000038	0000	0000	0000	0000	0000
000039	000039	0000	0000	0000	0000	0000
000040	000040	0000	0000	0000	0000	0000
000041	000041	0000	0000	0000	0000	0000
000042	000042	0000	0000	0000	0000	0000
000043	000043	0000	0000	0000	0000	0000
000044	000044	0000	0000	0000	0000	0000
000045	000045	0000	0000	0000	0000	0000
000046	000046	0000	0000	0000	0000	0000
000047	000047	0000	0000	0000	0000	0000
000048	000048	0000	0000	0000	0000	0000
000049	000049	0000	0000	0000	0000	0000
000050	000050	0000	0000	0000	0000	0000
000051	000051	0000	0000	0000	0000	0000
000052	000052	0000	0000	0000	0000	0000
000053	000053	0000	0000	0000	0000	0000
000054	000054	0000	0000	0000	0000	0000
000055	000055	0000	0000	0000	0000	0000
000056	000056	0000	0000	0000	0000	0000
000057	000057	0000	0000	0000	0000	0000
000058	000058	0000	0000	0000	0000	0000
000059	000059	0000	0000	0000	0000	0000
000060	000060	0000	0000	0000	0000	0000
000061	000061	0000	0000	0000	0000	0000
000062	000062	0000	0000	0000	0000	0000
000063	000063	0000	0000	0000	0000	0000
000064	000064	0000	0000	0000	0000	0000
000065	000065	0000	0000	0000	0000	0000
000066	000066	0000	0000	0000	0000	0000
000067	000067	0000	0000	0000	0000	0000
000068	000068	0000	0000	0000	0000	0000
000069	000069	0000	0000	0000	0000	0000
000070	000070	0000	0000	0000	0000	0000
000071	000071	0000	0000	0000	0000	0000
000072	000072	0000	0000	0000	0000	0000
000073	000073	0000	0000	0000	0000	0000
000074	000074	0000	0000	0000	0000	0000
000075	000075	0000	0000	0000	0000	0000
000076	000076	0000	0000	0000	0000	0000
000077	000077	0000	0000	0000	0000	0000
000078	000078	0000	0000	0000	0000	0000
000079	000079	0000	0000	0000	0000	0000
000080	000080	0000	0000	0000	0000	0000
000081	000081	0000	0000	0000	0000	0000
000082	000082	0000	0000	0000	0000	0000
000083	000083	0000	0000	0000	0000	0000
000084	000084	0000	0000	0000	0000	0000
000085	000085	0000	0000	0000	0000	0000
000086	000086	0000	0000	0000	0000	0000
000087	000087	0000	0000	0000	0000	0000
000088	000088	0000	0000	0000	0000	0000
000089	000089	0000	0000	0000	0000	0000
000090	000090	0000	0000	0000	0000	0000
000091	000091	0000	0000	0000	0000	0000
000092	000092	0000	0000	0000	0000	0000
000093	000093	0000	0000	0000	0000	0000
000094	000094	0000	0000	0000	0000	0000
000095	000095	0000	0000	0000	0000	0000
000096	000096	0000	0000	0000	0000	0000
000097	000097	0000	0000	0000	0000	0000
000098	000098	0000	0000	0000	0000	0000
000099	000099	0000	0000	0000	0000	0000
000100	000100	0000	0000	0000	0000	0000



BODY FLAP EFFECTIVENESS

(A)MACH = 0.21

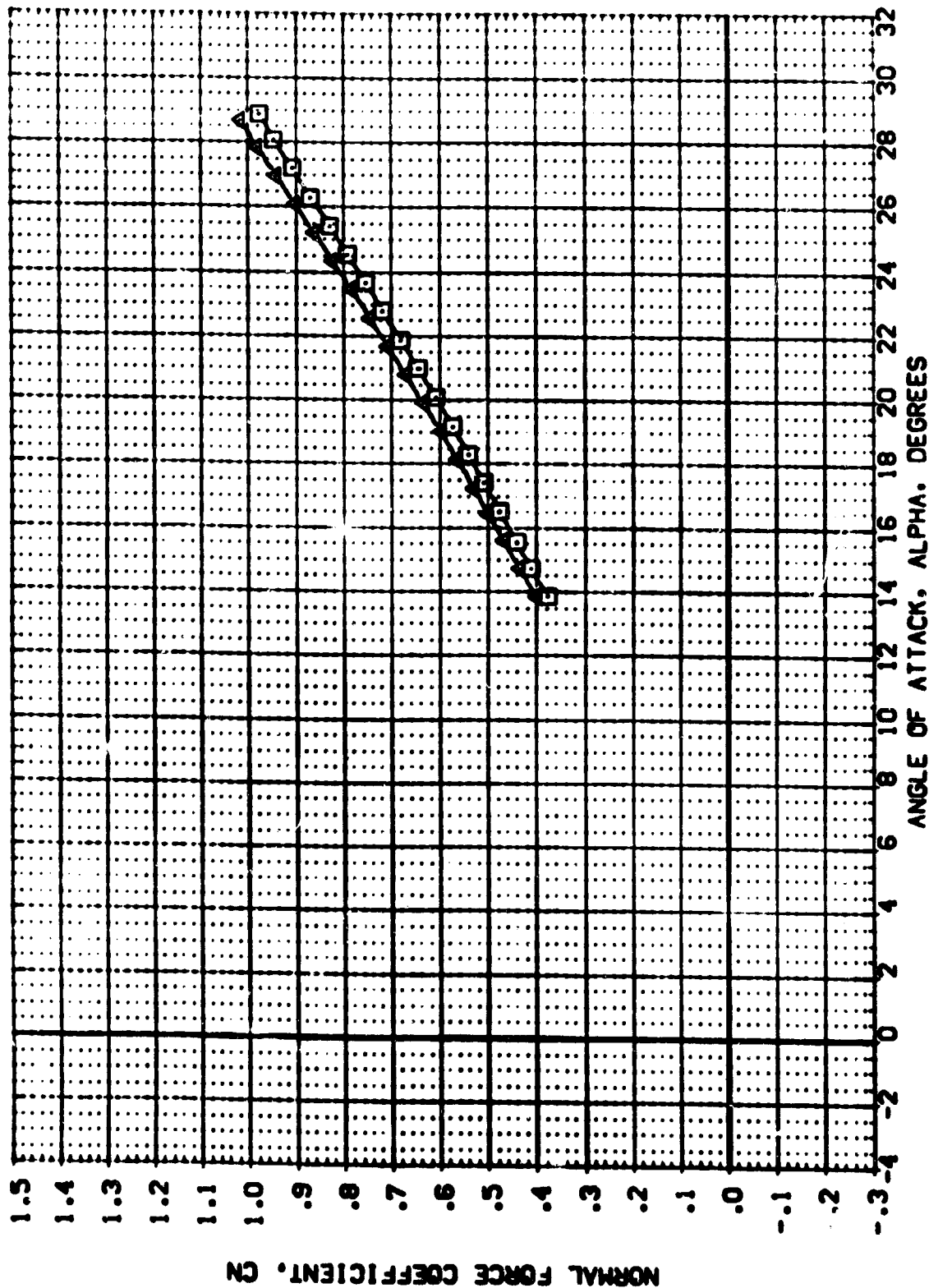
DATA SET SYMBOL	CONF:GURATION DESCRIPTION	ELEVON	R/OFLR	BF LAP	RVL	REFERENCE INFORMATION
00003	0488 B22 07 M4 FS V111 E23 V7 R5	.0000	54.920	-14.250	11.300	8253
00004	0488 B22 07 M4 FS V111 E23 V7 R5	.0000	54.920	-14.250	11.300	7122
00005	0488 B22 07 M4 FS V111 E23 V7 R5	.0000	54.920	-14.250	11.300	4122
00006	0488 B22 07 M4 FS V111 E23 V7 R5	.0000	54.920	-14.250	11.300	2122
						6122
						SCALE



BODY FLAP EFFECTIVENESS

(MACH = 2.00)

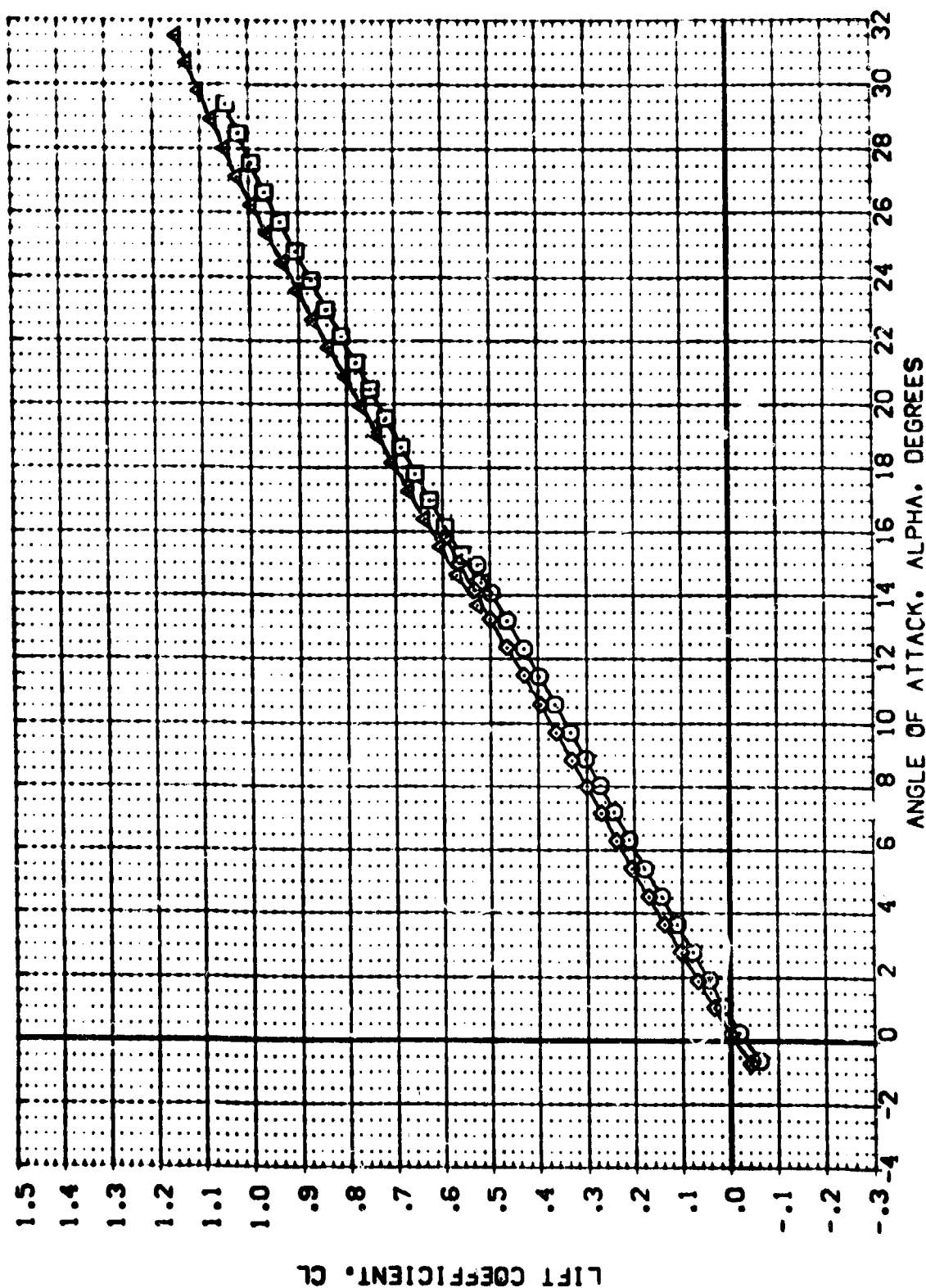
DATA SET SYMBOL	CONFIRMATION DESCRIPTION	ELEVON	ROTOR	BLAP	RVL	REFERENCE INFORMATION
000001	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	6053
000002	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	7222
000003	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	14000
000004	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	12000
000005	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000
000006	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000
000007	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000
000008	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000
000009	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000
000010	DATA NOT AVAILABLE	000000	54.900	4.200	11.000	60000



BODY FLAP EFFECTIVENESS

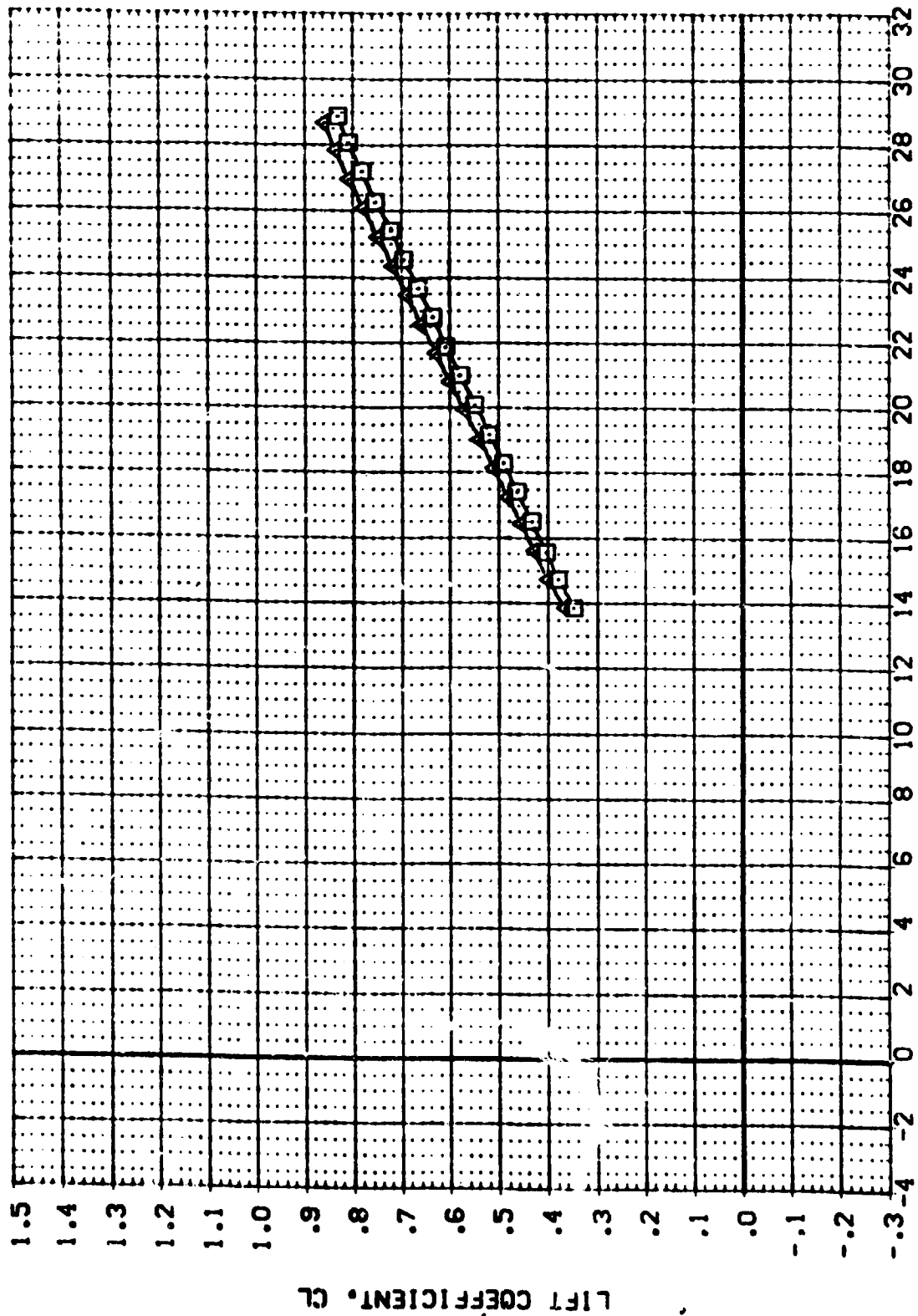
(B)^{MAC} = 3.0:

000000
999999
888888
7777
666666
555555
444444
333333
222222
111111



CADAC = 2.00

DATA SET SVSC	CONFIGURATION DESCRIPTION	ELEVON	RUD FLR	BF LAP	RVL	REFERENCE INFORMATION
00003	DATA NOT AVAILABLE	000	54.920	4.250	11.300	SREF
00004	0468 B22 C7 M4 E5 V111 E23 V7 R5	000	54.920	4.250	11.300	LINEF
00005	DATA NOT AVAILABLE	000	54.920	3.750	11.300	BR F
00006	0468 B22 C7 M4 E5 V111 E23 V7 R5	000	54.920	3.750	11.300	KWAP
						WAP
						ZAP
						SCALE

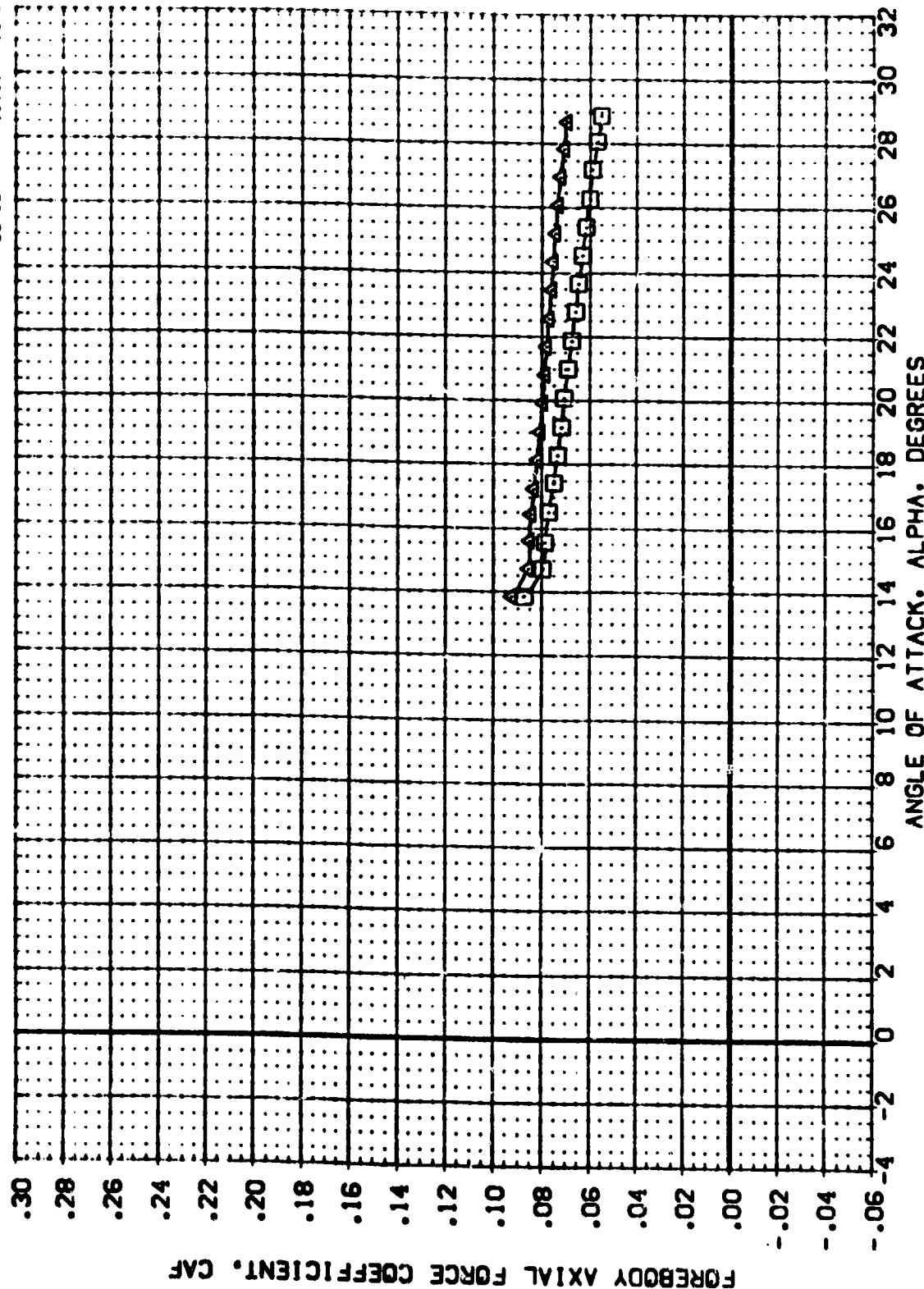


ANGLE OF ATTACK, ALPHA, DEGREES

BODY FLAP EFFECTIVENESS

(B)YAC = 3.0:

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEV	RJFLR	BFLAP	RVL	REFERENCE INFORMATION
0003	1	DATA NOT AVAILABLE	000	54.920	-14.250	000	SREF 6053
0004	2	DATA NOT AVAILABLE	000	54.920	-14.250	000	BREF 7000
0005	3	DATA NOT AVAILABLE	000	54.920	13.750	000	XREF 4000
0006	4	DATA NOT AVAILABLE	000	54.920	13.750	000	YREF 3000
							ZREF 6000
							SCALE 6000



BODY FLAP EFFECTIVENESS

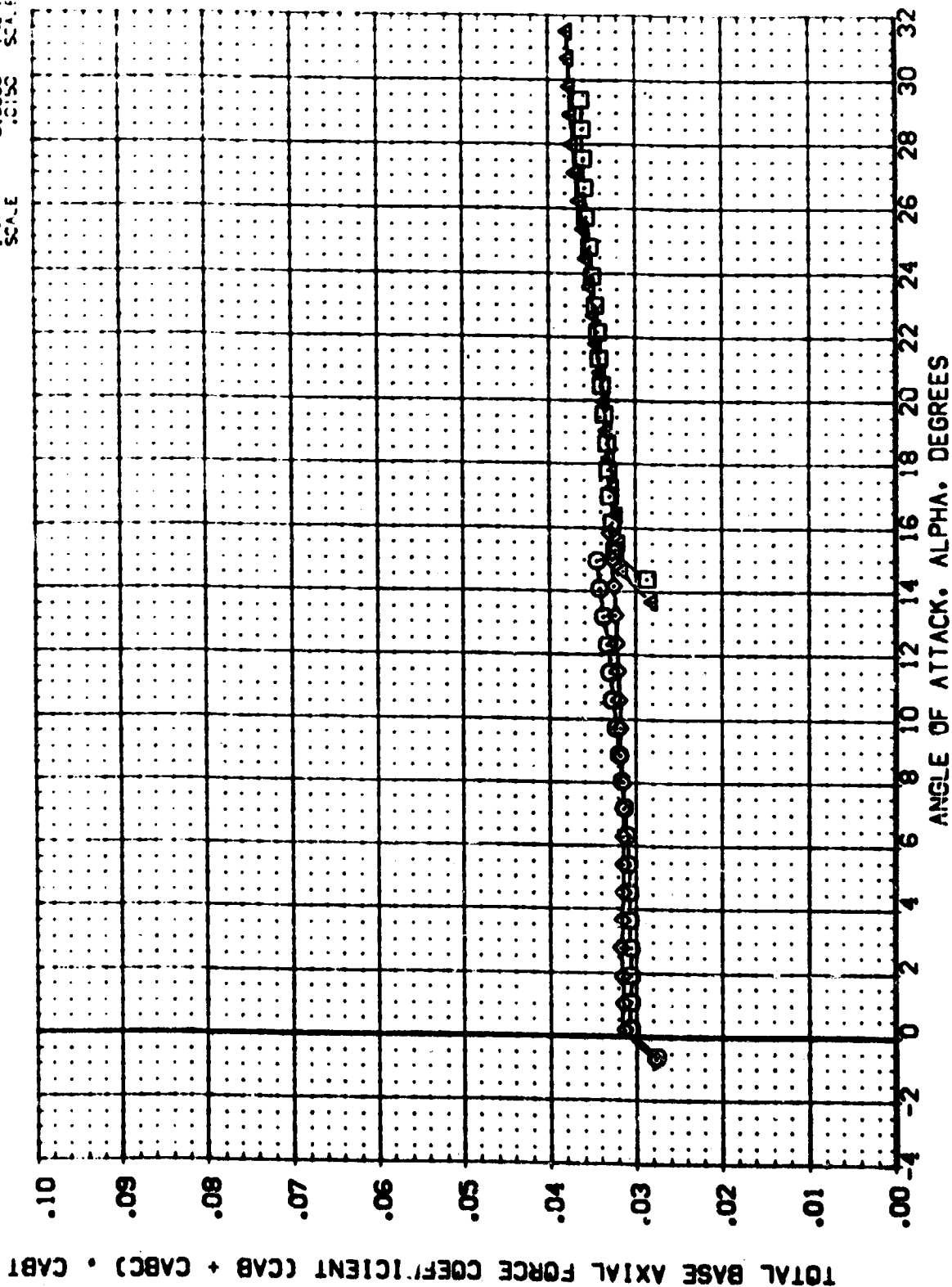
(B)YACF = 3.01

DATA SET SYMBC CONFIGURATION DESCRIPTION

DATA SET	SYMBC	CONFIGURATION	DESCRIPTION
00003	0	0108 822 01	W1 F5 V111 023 V7 RS
00004	0	0108 822 01	W1 F5 V111 023 V7 RS
00005	X	0108 822 01	W1 F5 V111 023 V7 RS
00006	X	0108 822 01	W1 F5 V111 023 V7 RS

REFERENCE INFORMATION

SYMBOL	VALUE
SCALE	6.00000
W1	1.00000
F5	1.00000
V111	1.00000
023	1.00000
V7	1.00000
RS	1.00000



BODY FLAP EFFECTIVENESS

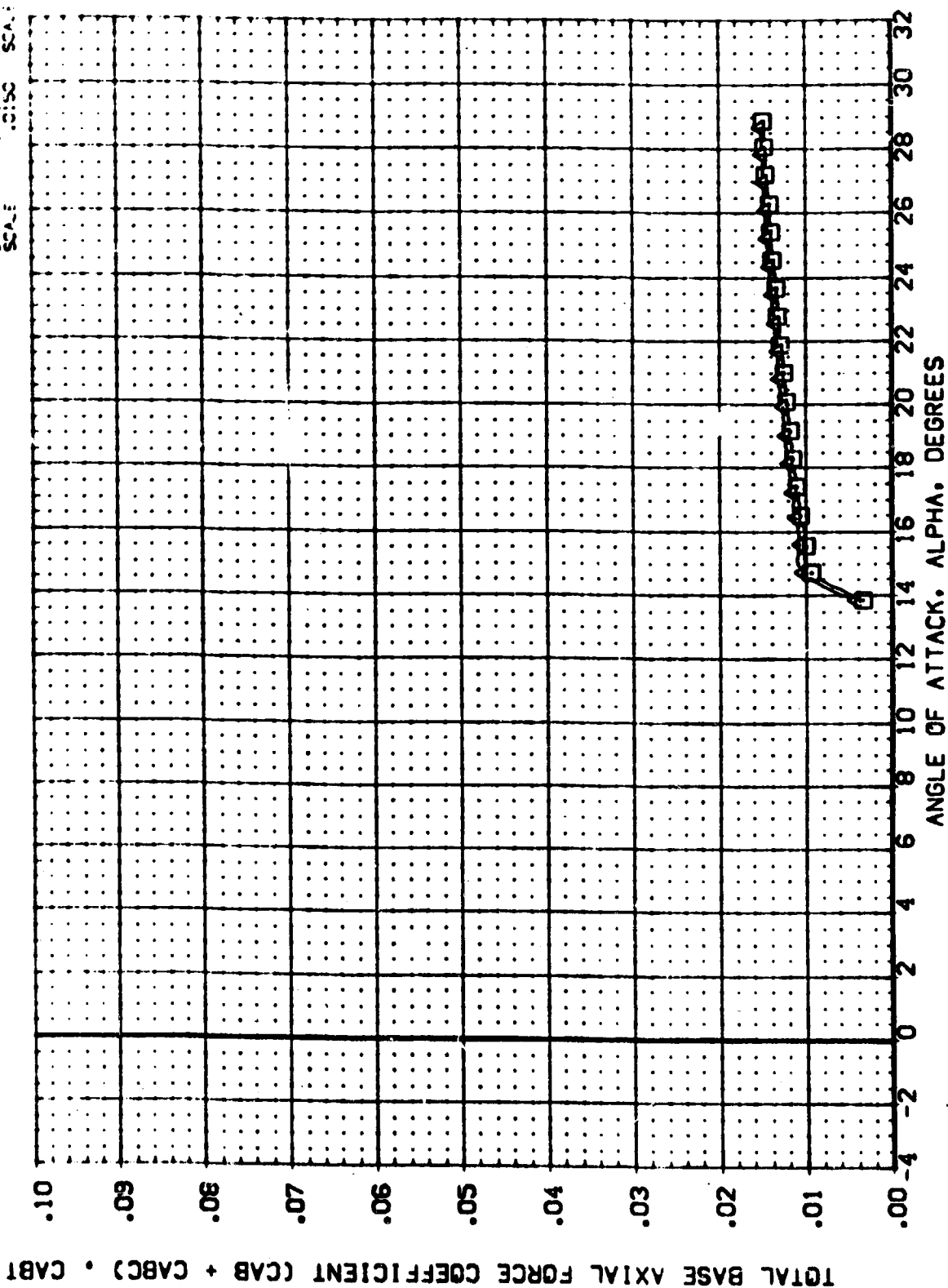
(A)MACH = 2.00

DATA SET SYMBOL: CON FIGURATION DESCRIPTION

☐ DATA NOT AVAILABLE
☒ DATA NOT AVAILABLE
☒ DATA NOT AVAILABLE
☒ DATA NOT AVAILABLE

ELEVON RUDLER FLAP FVL
 .000 54.920 -14.200 .000
 .000 54.920 -14.200 .000
 .000 54.920 -13.750 .000
 .000 54.920 -13.750 .000

REFERENCE INFORMATION
 SRE 6000
 RFL 6000
 RUD 6000
 FVL 6000
 SCALE 6000

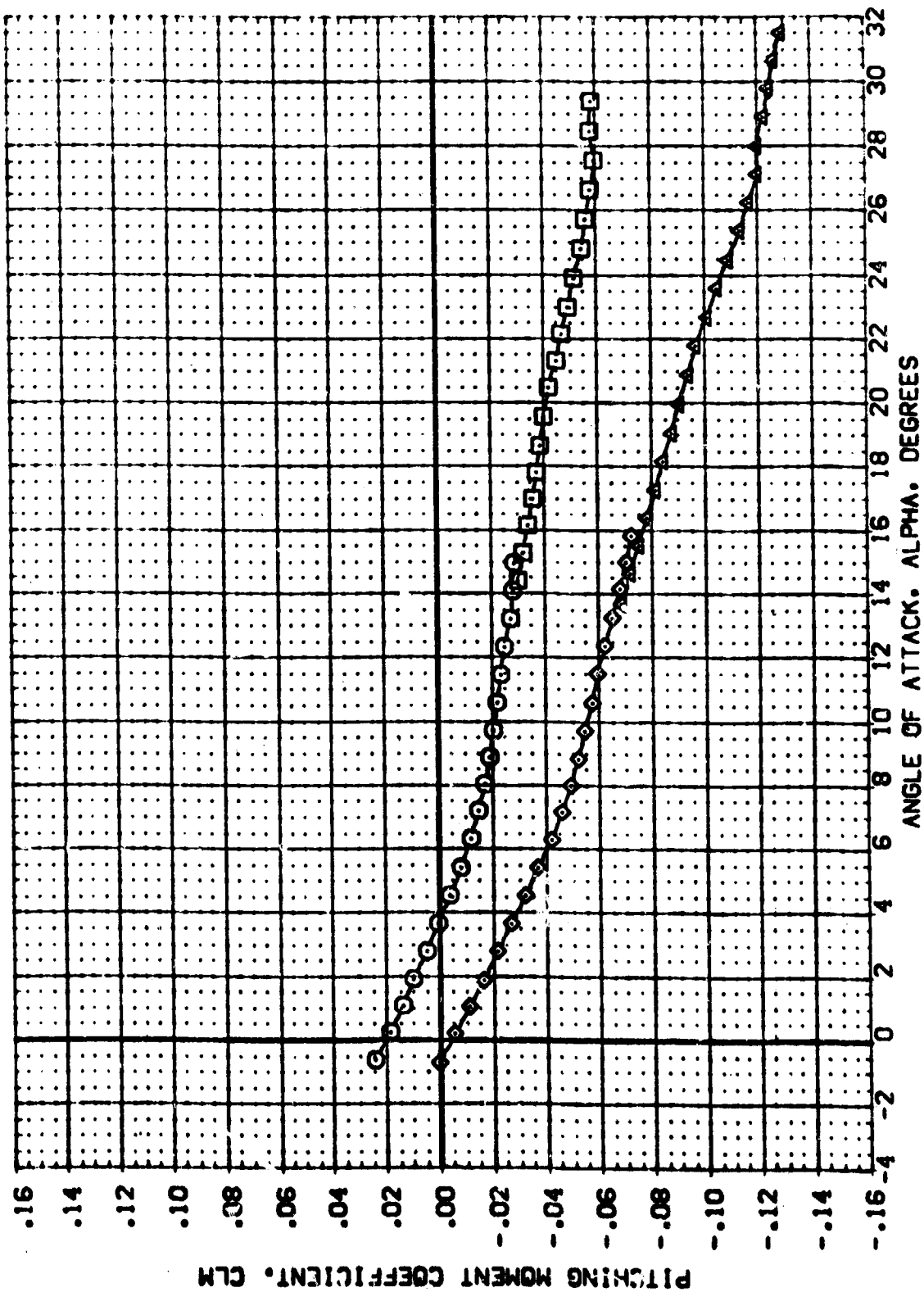


BODY FLAP EFFECTIVENESS

(B)MACH = 3.01

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 0003 0488 B22 E7 M4 F5 V11 E23 V7 R5
 0004 0488 B22 E7 M4 F5 V11 E23 V7 R5
 0005 0488 B22 E7 M4 F5 V11 E23 V7 R5
 0006 0488 B22 E7 M4 F5 V11 E23 V7 R5

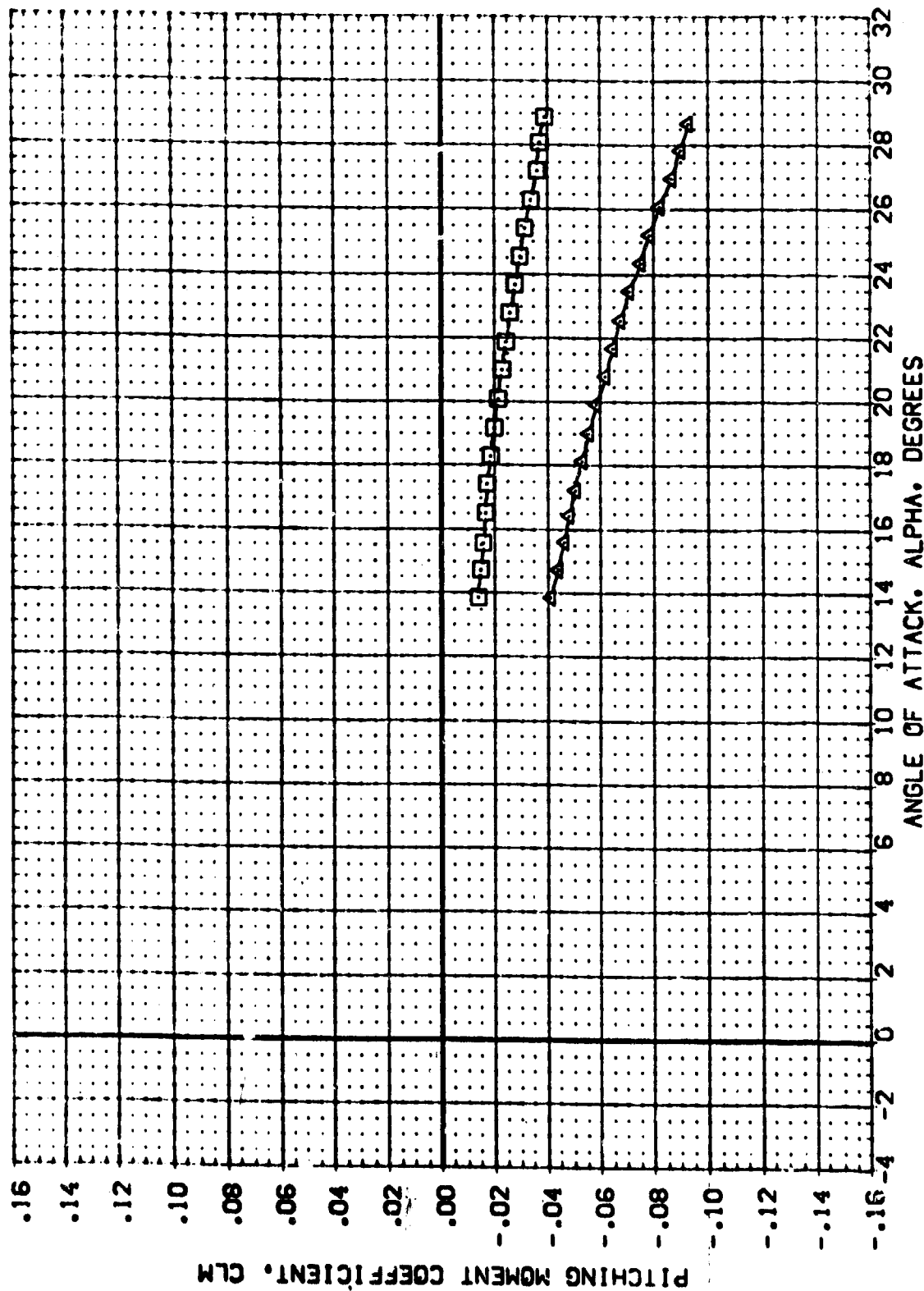
ELEVON R/O L/R BE LAP RV/L REFERENCE INFORMATION
 .0000 .9200 -14.250 .300 SREF 6253
 .0000 .9200 -14.250 .100 LBREF 7.022
 .0000 .9200 -13.750 .100 BRREF 1.667
 .0000 .9200 .000 .000 XPROP 2.000
 .0000 .9200 .000 .000 YPROP 6.000
 .0000 .9200 .000 .000 ZPROP 6.000
 .0000 .9200 .000 .000 SCALE 1.000



BODY FLAP EFFECTIVENESS

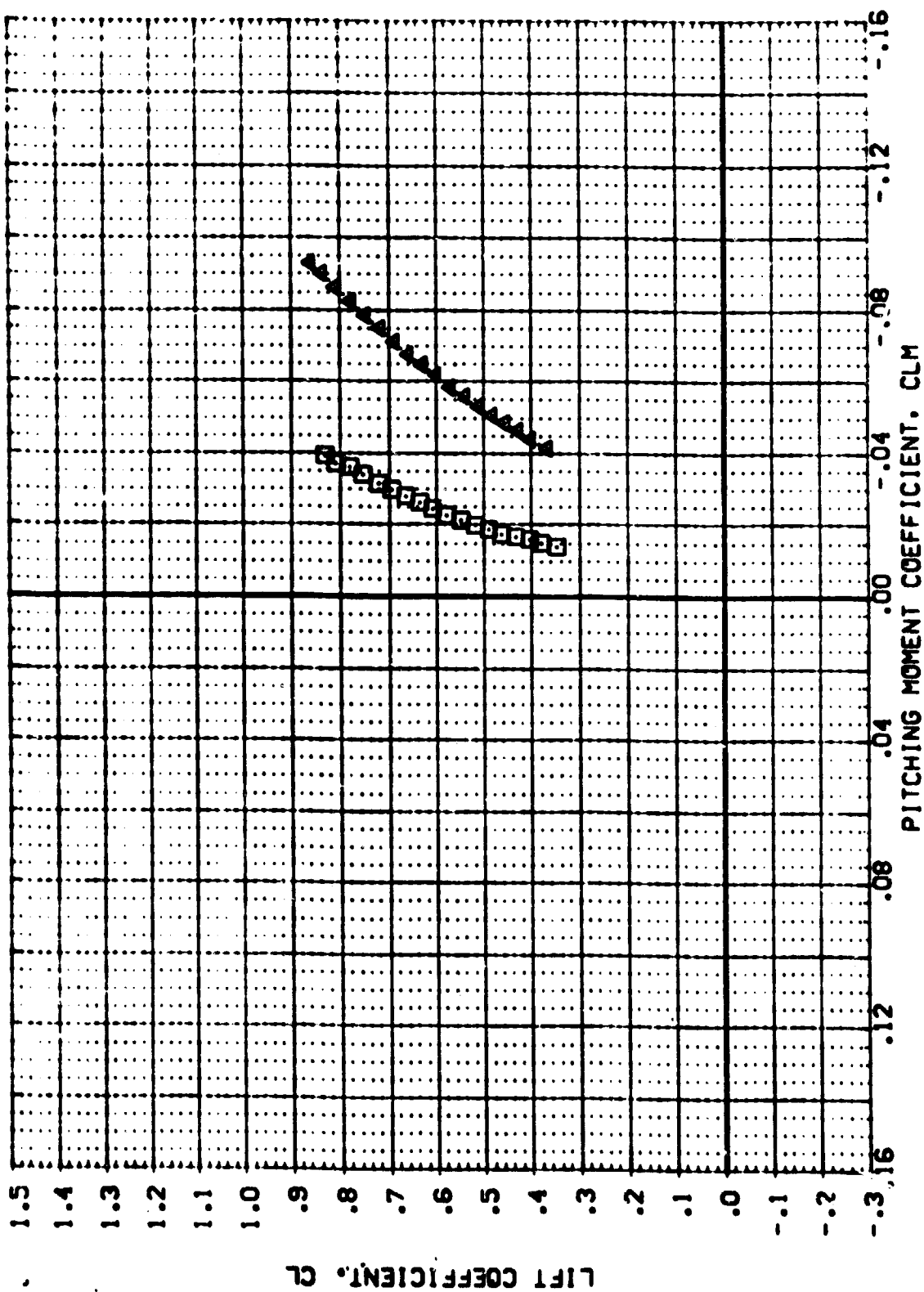
CALMACH = 2.00

DATA SET SYNO	CONFIGURATION DESCRIPTION	ELEV	ROTOR	BLAP	RVL	REFERENCE INFORMATION
00003	DATA NOT AVAILABLE	.000	54.900	-4.250	11.300	SREF 6.000
00004	0488 B22 27 M4 F5 V111 E23 V7 R5	.000	54.900	-4.250	11.300	LREF 7.000
00005	DATA NOT AVAILABLE	.000	54.900	-4.250	11.300	BREF 14.000
00006	0488 B22 27 M4 F5 V111 E23 V7 R5	.000	54.900	-4.250	11.300	WREF 2.000
						ZREF 6.000
						SCALE 0.050



BODY FLAP EFFECTIVENESS

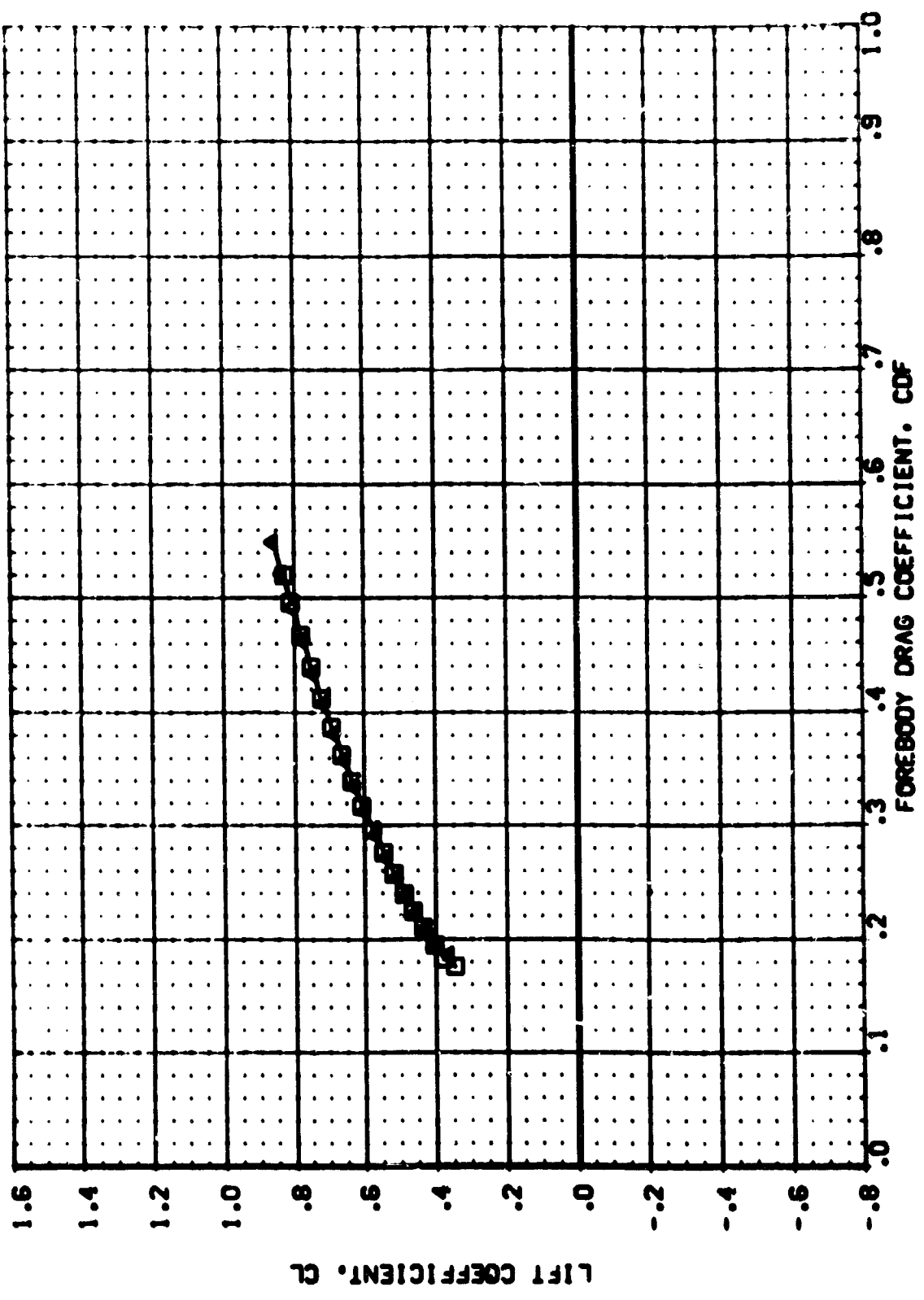
(B)MACH = 3.01

[illegible]

BODY FLAP EFFECTIVENESS

(B)MAC- 3.0:

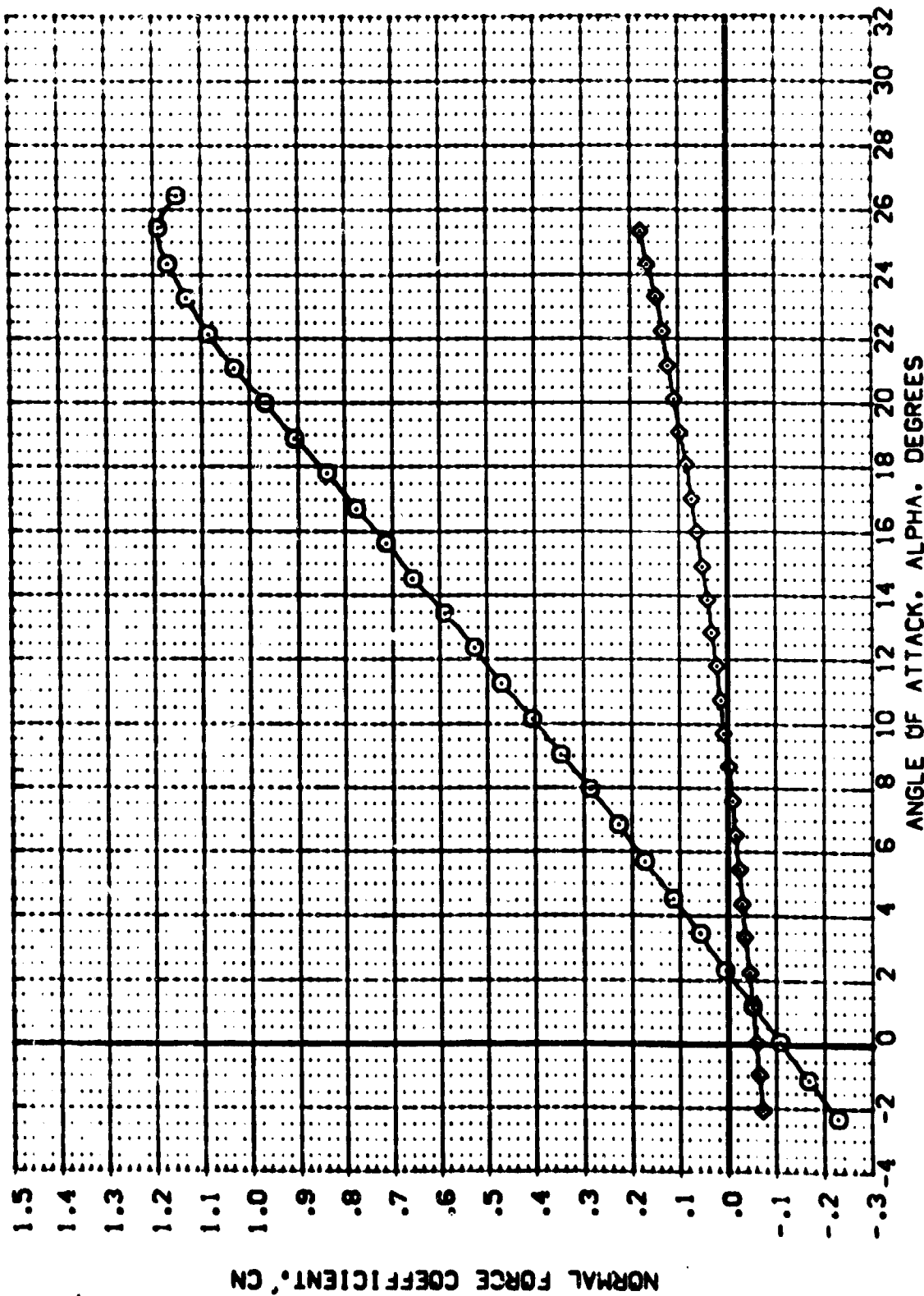
DATA SET SYMBOL	CONF: 3000	DESCRIPTION	ELEVON	RUDFLR	BF LAP	RAVL	REFERENCE INFORMATION
00003	0	DATA NOT AVAILABLE	.000	54.920	-14.750	11.300	SREF 6053
00004	X	DATA NOT AVAILABLE	.000	54.920	-14.750	11.300	LRFC 7.1222
00005	X	DATA NOT AVAILABLE	.000	54.920	-14.750	11.300	BRFC 14.0002
00006	X	DATA NOT AVAILABLE	.000	54.920	-14.750	11.300	VRFP 12.6171
							ZREF 6.0000
							SCALE 6.0500



BODY FLAP EFFECTIVENESS
 (8)MACH = 3.01

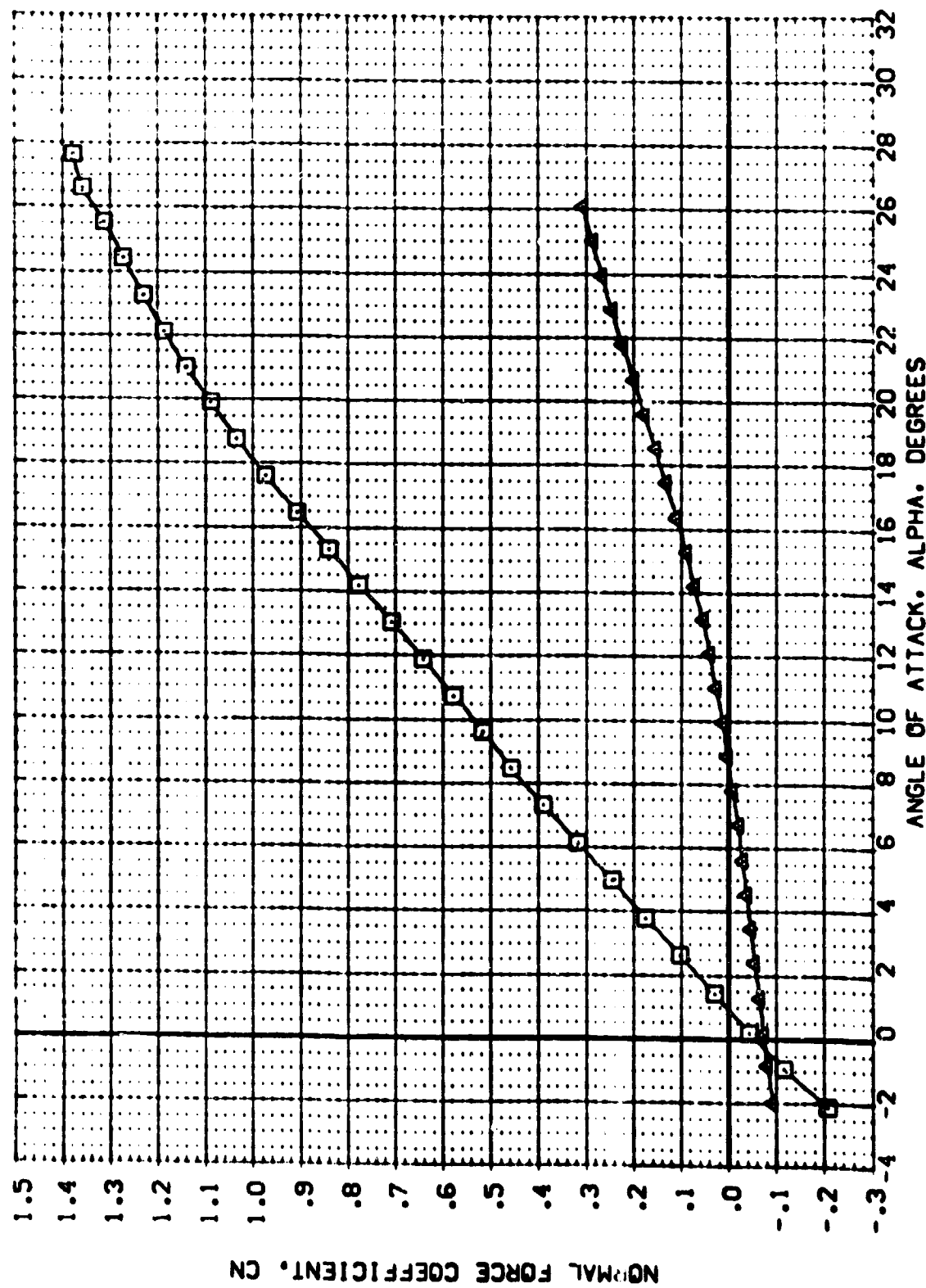
DATA SET SYMBOL COMBINATION DESCRIPTION
 2400 027 07 04 FS V1: 027 V7 05
 DATA AVAILABLE
 2400 027 07 04 FS V7 05
 DATA AVAILABLE

ELEVON 000
 ROLLOVER 24.970
 FLAP 14.250
 RW 7.000
 REFERENCE INFORMATION
 SFC 6000
 REF 7.000
 BRP 7.000
 VMO 6.000
 SCALE 6.000



EFFECT OF WING

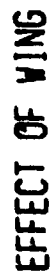
CANVAC = .6:

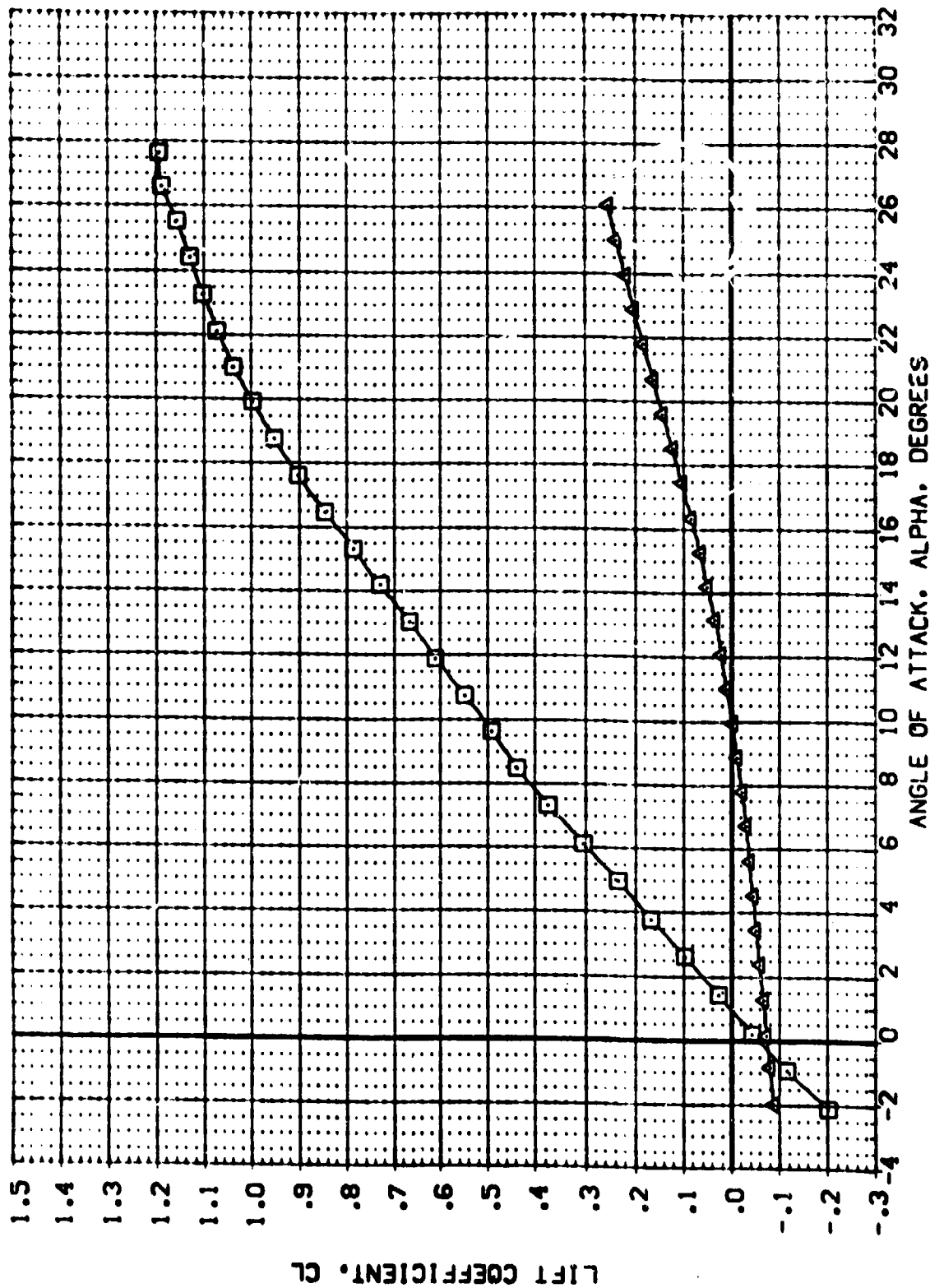
[illegible]

EFFECT OF WING

$$(3, \gamma C) = : 2 :$$

25c

[illegible]
$$\{A\}_{MACH} = .61$$

[illegible]

EFFECT OF WING

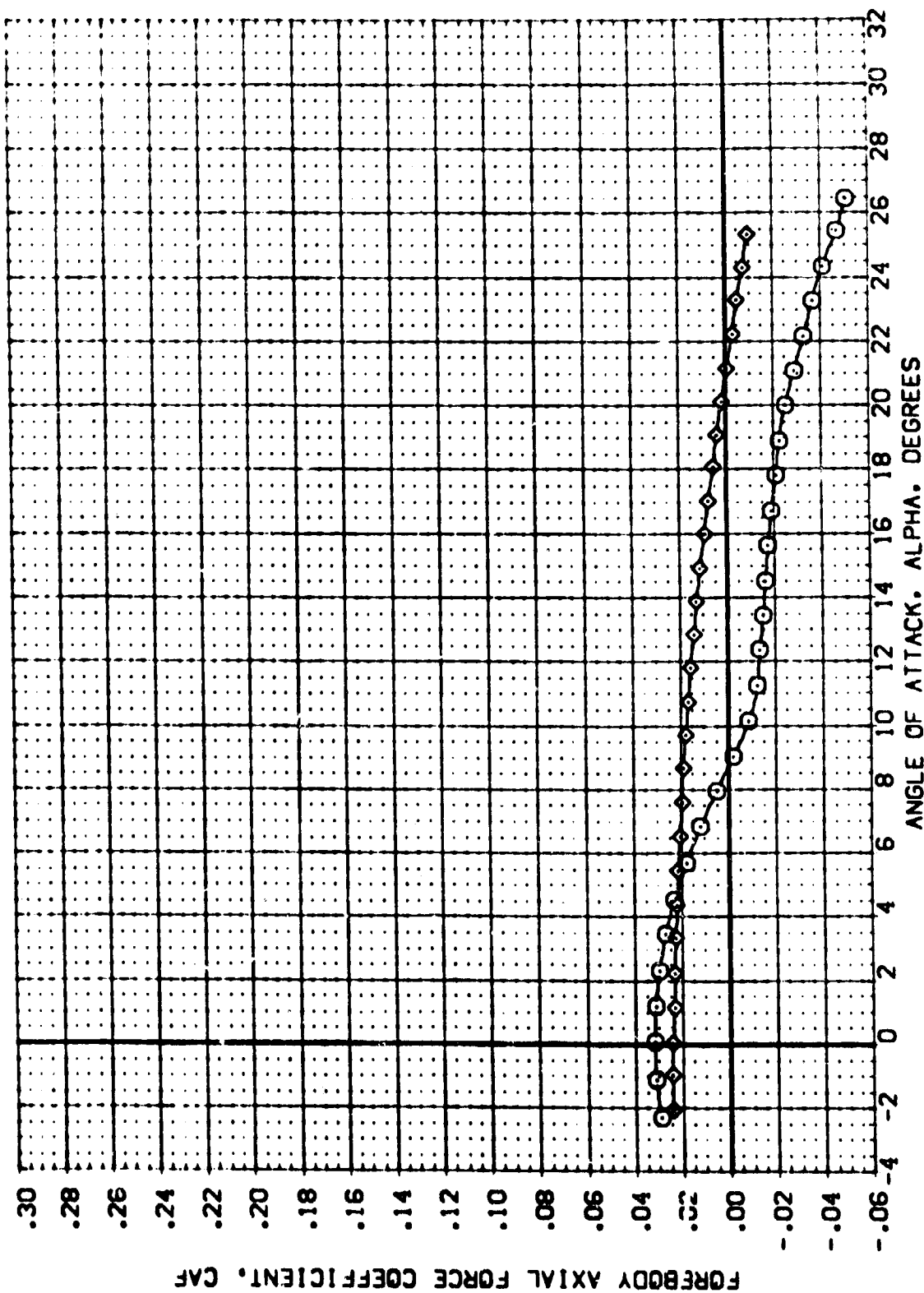
```
(B)MACH = !.21
```

PAGE: 73

DATA SET SYMBOL: 2468 922 C7 M4 FS V111 E23 V7 RS
 DATA NO: AVAILABLE
 DATA NO: AVAILABLE
 DATA NO: AVAILABLE

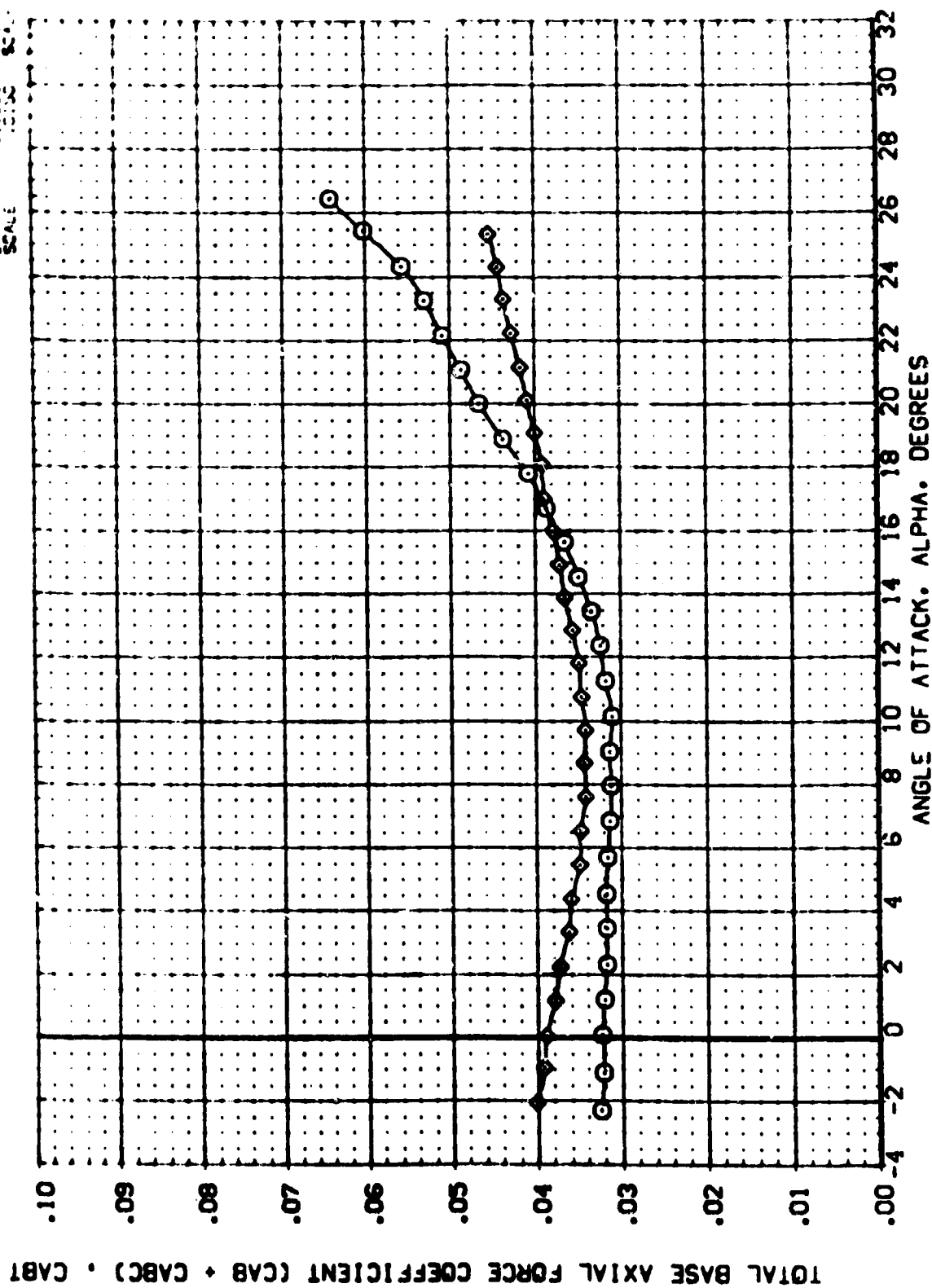
ELEVON: .000
 ROLLR: 24.920
 BFLAP: -14.200
 RV: 7.000

REFERENCE INFORMATION:
 SREF: .6053
 LREF: 7.000
 BREF: 4.000
 XREF: 7.000
 YREF: 6.000
 ZREF: 6.000
 SCALE: 1.000



EFFECT OF WING

(A) MACH = .61

[illegible]

EFFECT OF WING

$[A]_{\text{VACH}} = .61$

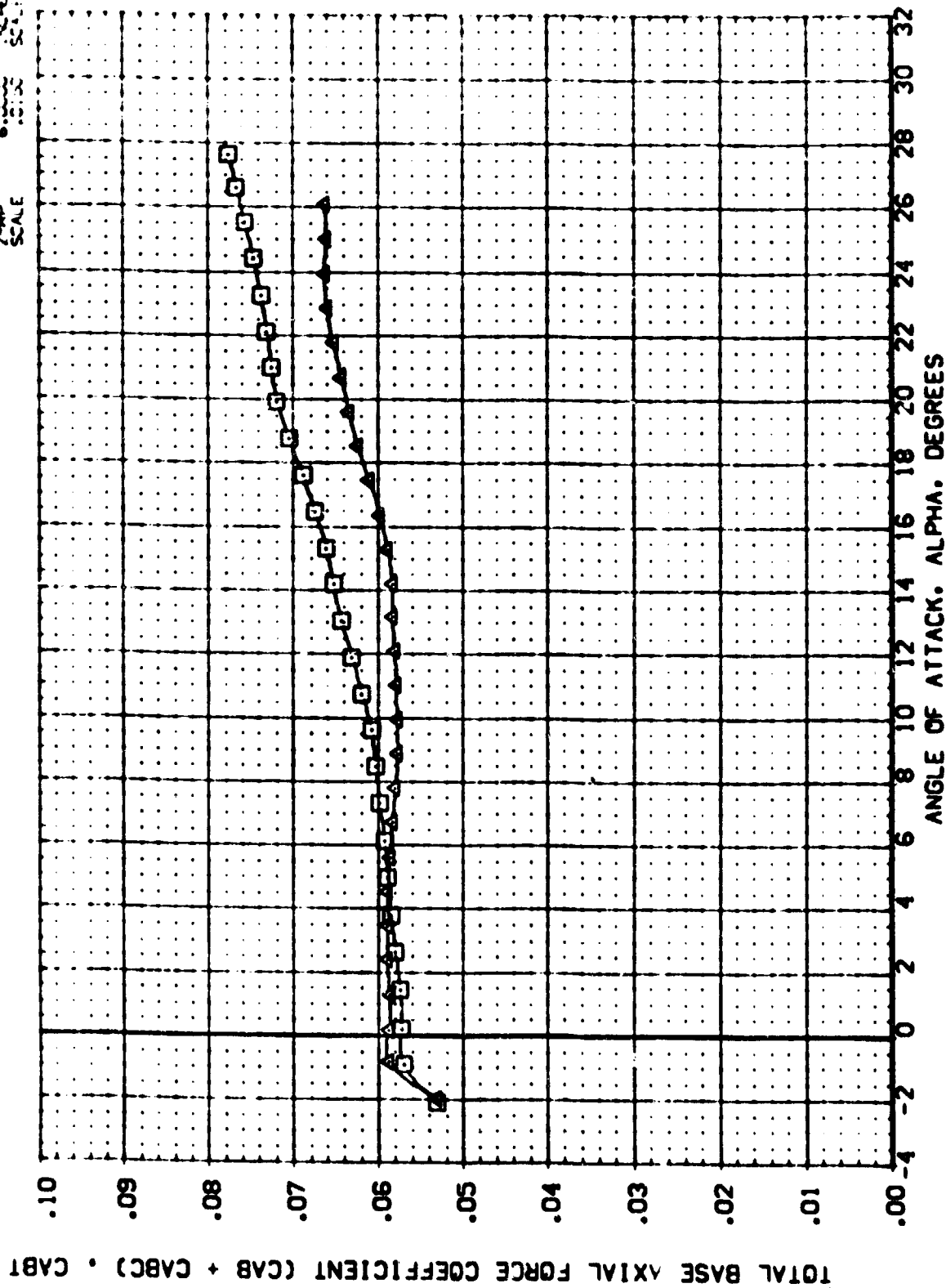
DATA NOT AVAILABLE
DATA 872 0704 15 AVAILABLE
DATA 872 0704 15 AVAILABLE
DATA 872 0704 15 AVAILABLE

388
904373

[illegible]

3-11-68
3-12-68
3-13-68
3-14-68
3-15-68
3-16-68
3-17-68

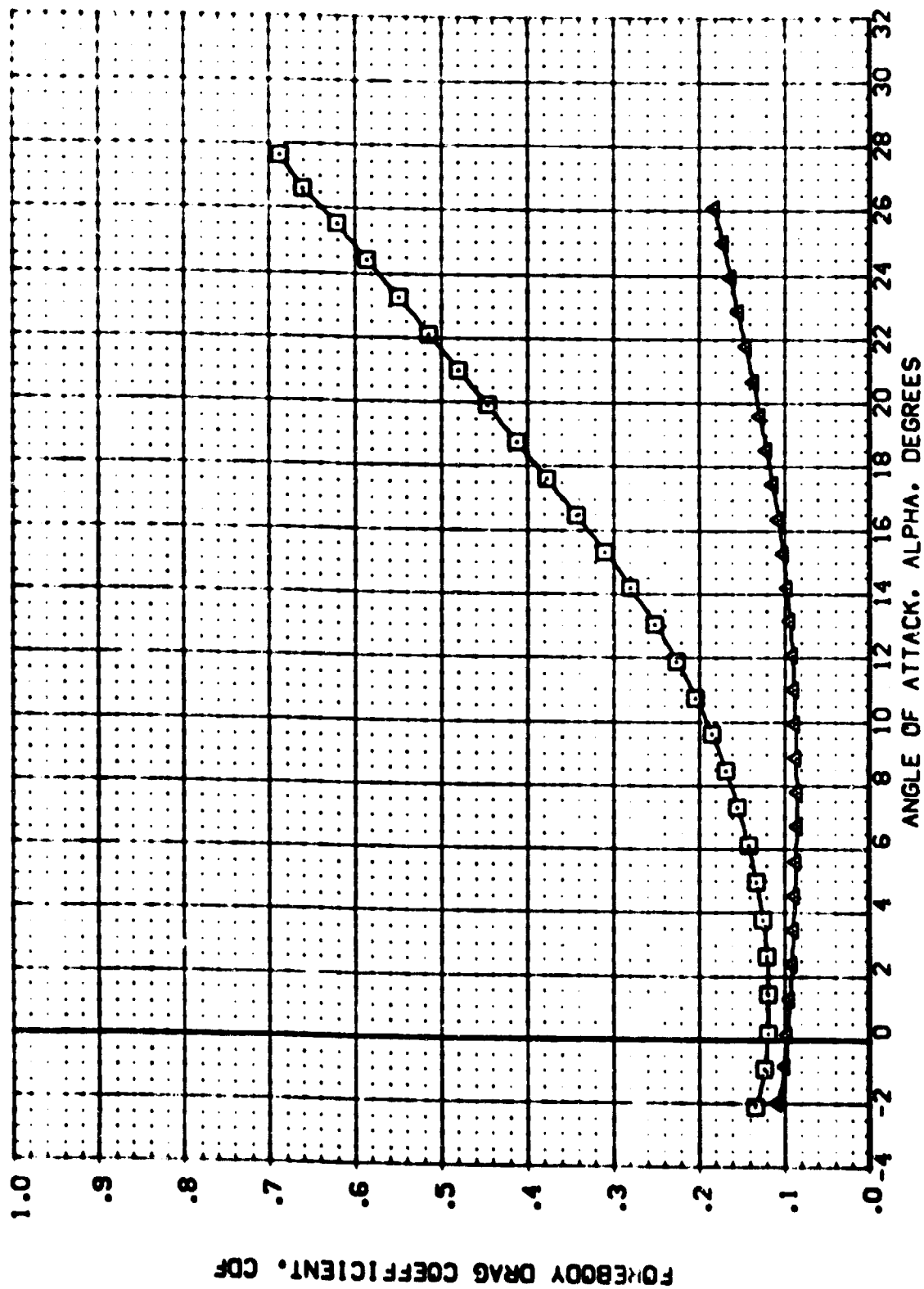
999999
999999
999999



EFFECT OF WING

$$[B]_{\text{VAC}} = 1.21$$

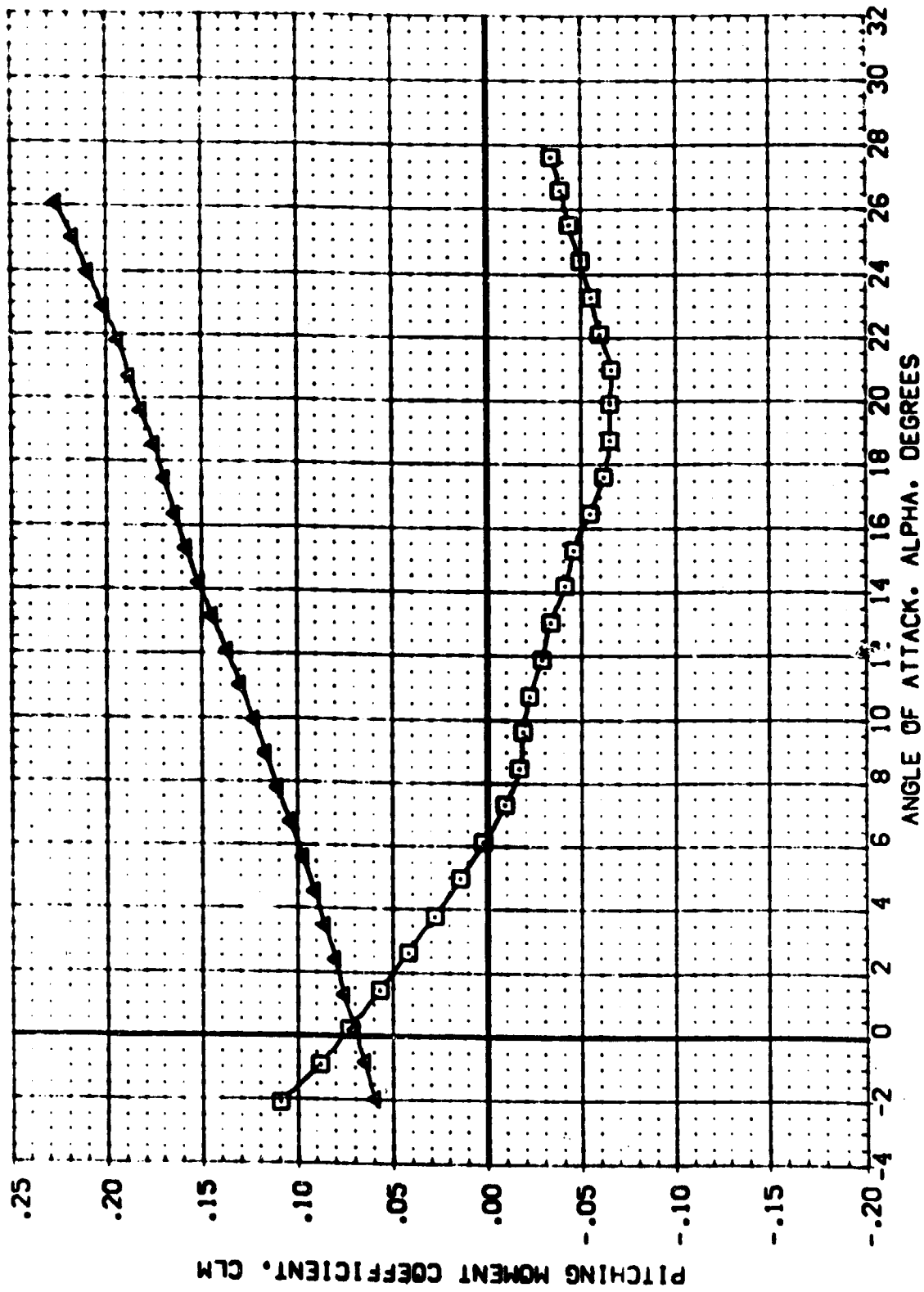
PAGE

[illegible]

(B)YACH = :.2:

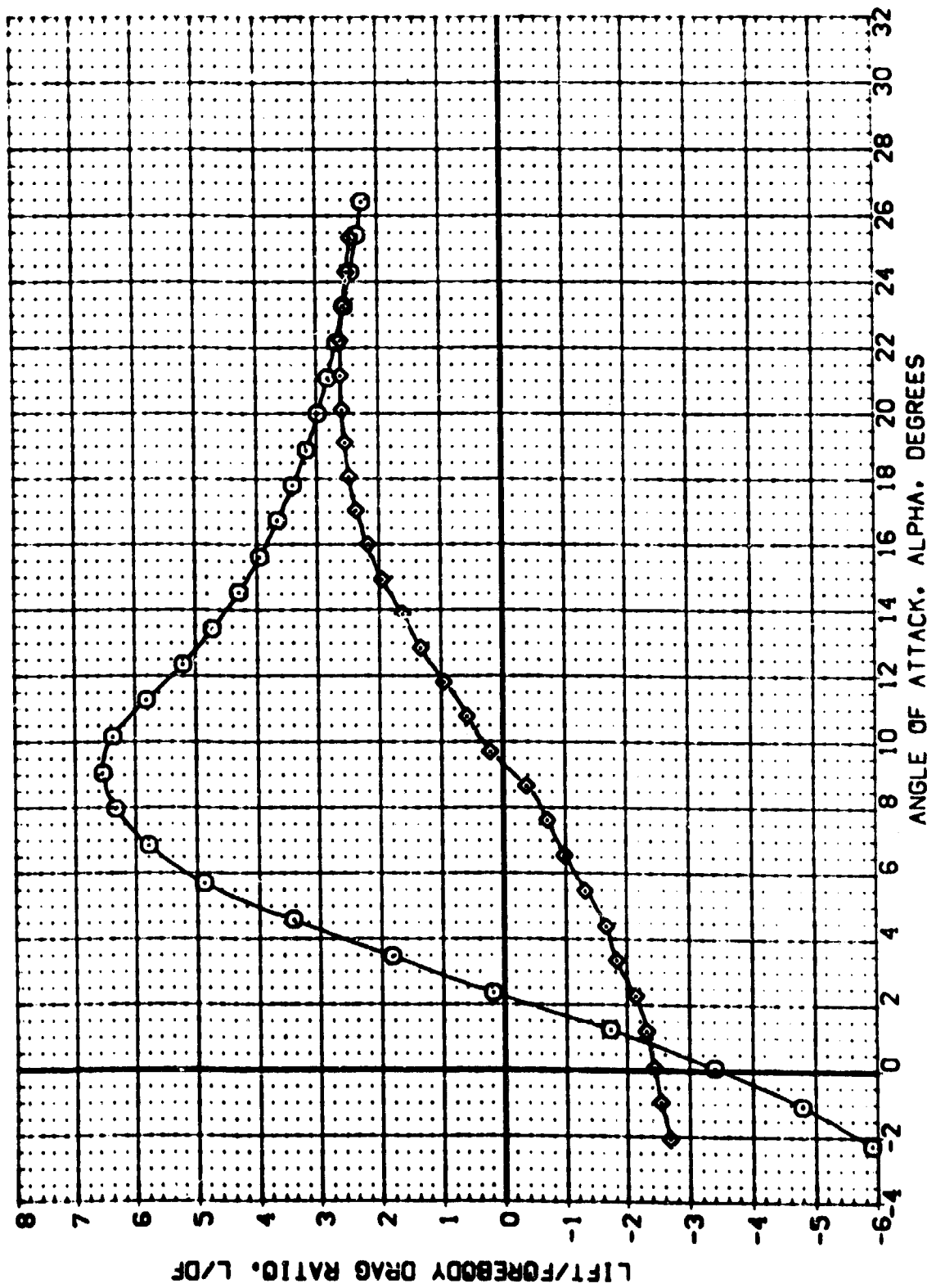
[illegible]
$$\{A\}MACH = .61$$

ELEV	80000
RJCT	80000
DEP	80000
REF	80000
AP	80000
WV	80000
SURF	80000
BRK	80000
TRPO	80000
GRD	80000
STRT	80000
END	80000
REFERENCE IN COMM :	999999999
*****	999999999



EFFECT OF WING

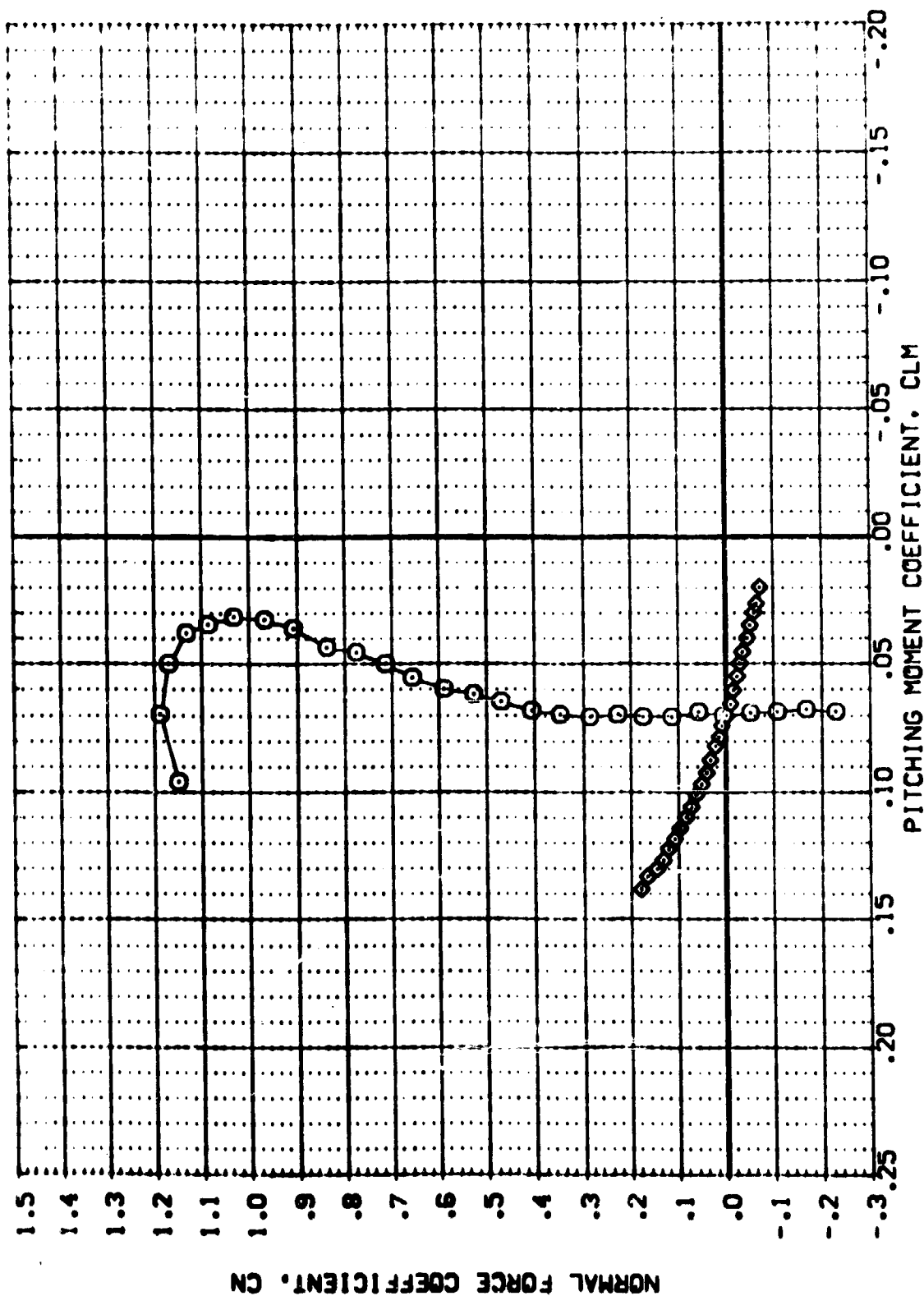
$$(B)_{MACH} = 1.21$$

[illegible]

EFFECT OF WING

(A)MACH

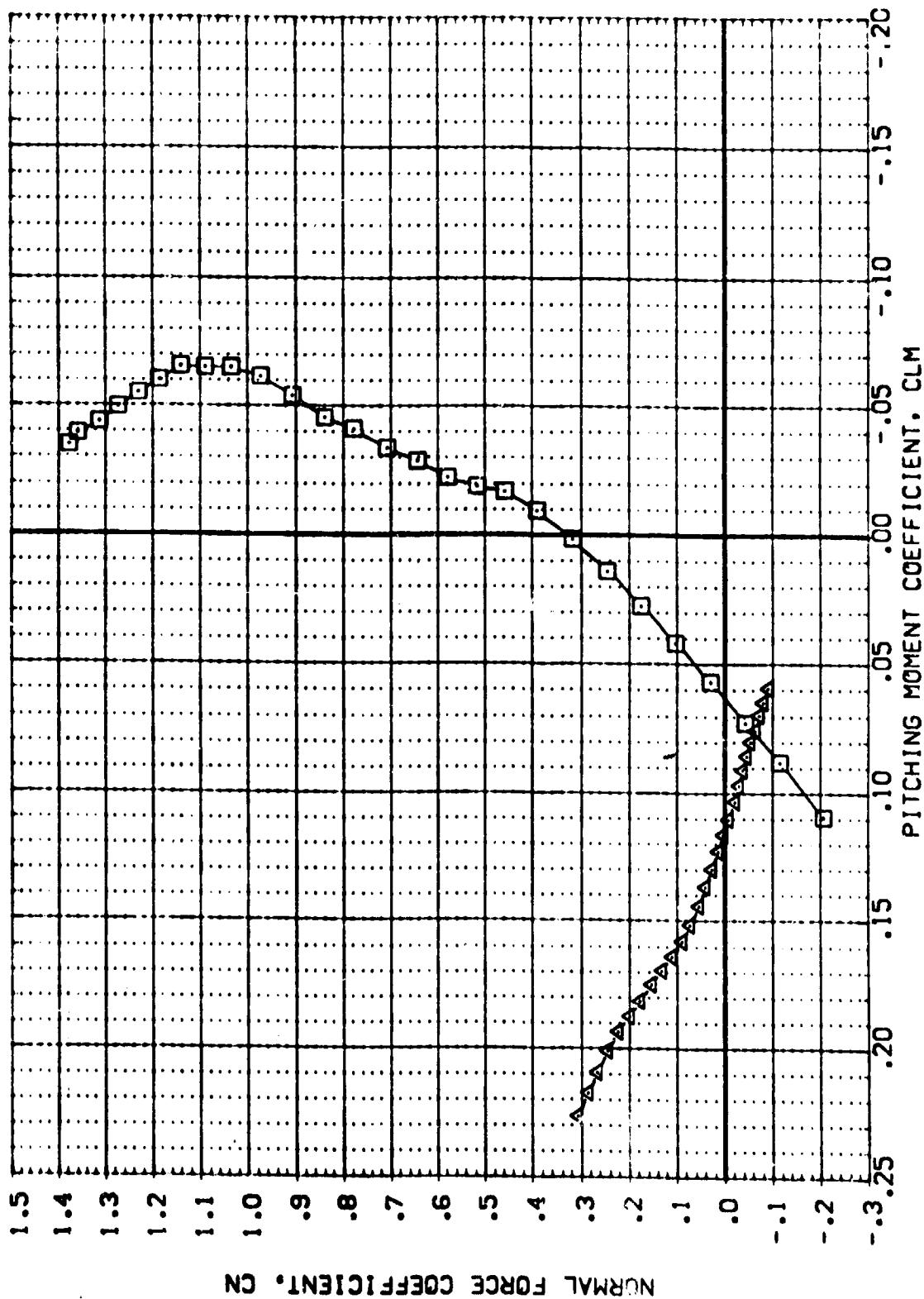
PAGE 48:

[illegible]

EFFECT OF WING
(A) MACH = .61

PAGE: 86

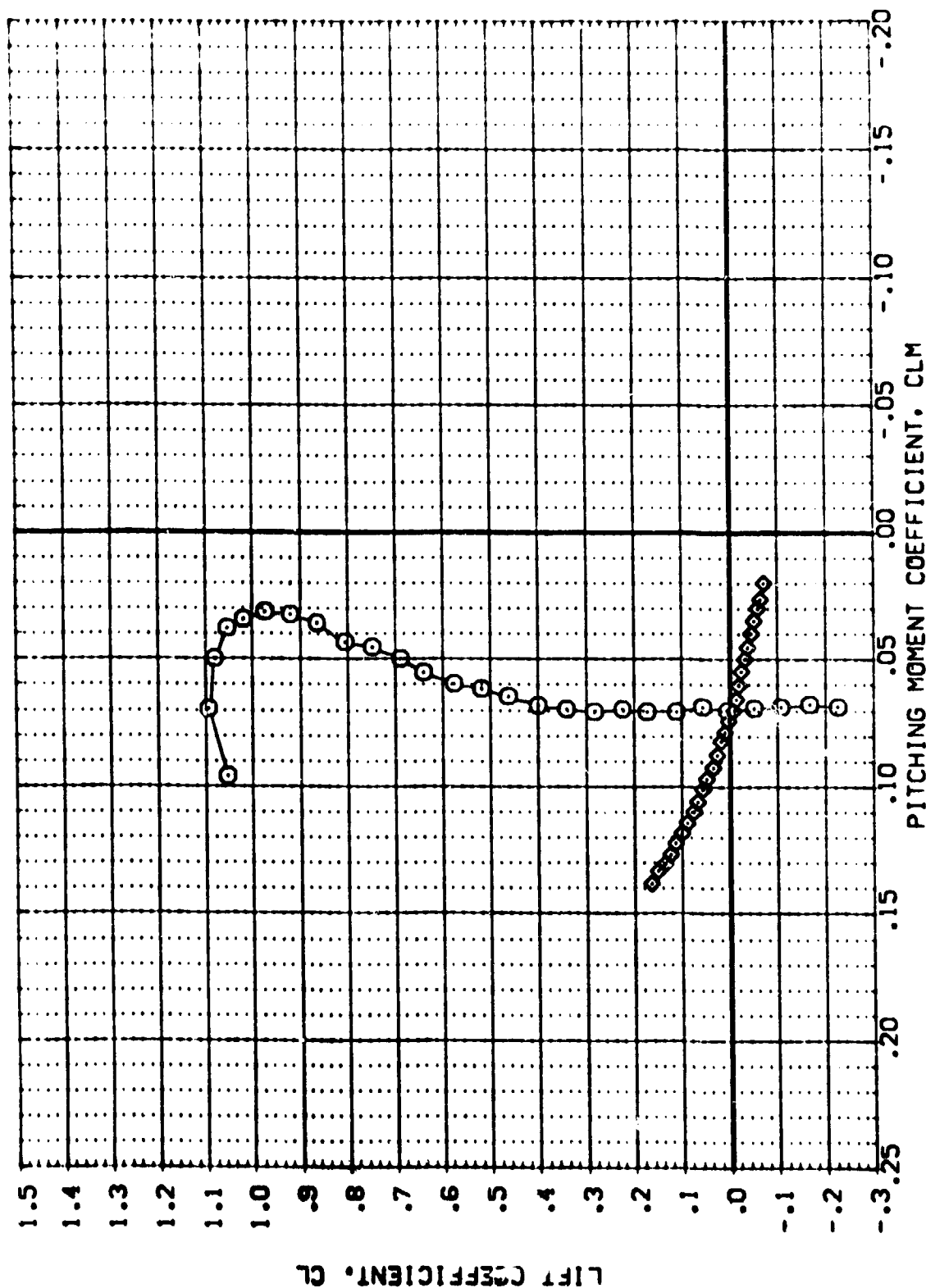
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	R.D.F.R	B.F.L.A.P	R.V.L	REFERENCE INFORMATION
Q	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SREF .6053
X	SAB B22 C7 M4 F5 V1: E23 V7 R5	.000	54.920	-14.250	7.000	LREF 7.1722
	DATA NOT AVAILABLE		24.920	-14.250	7.000	BREF 14.0507
	SAB B22 C7 M4 F5 V7 R5		54.920	-14.250	7.000	XREF 12.6171
						YREF .0000
						ZREF .0000
						SCALE 6.0000
						SCALE 0.150



EFFECT OF WING

(B)MACH = 1.21

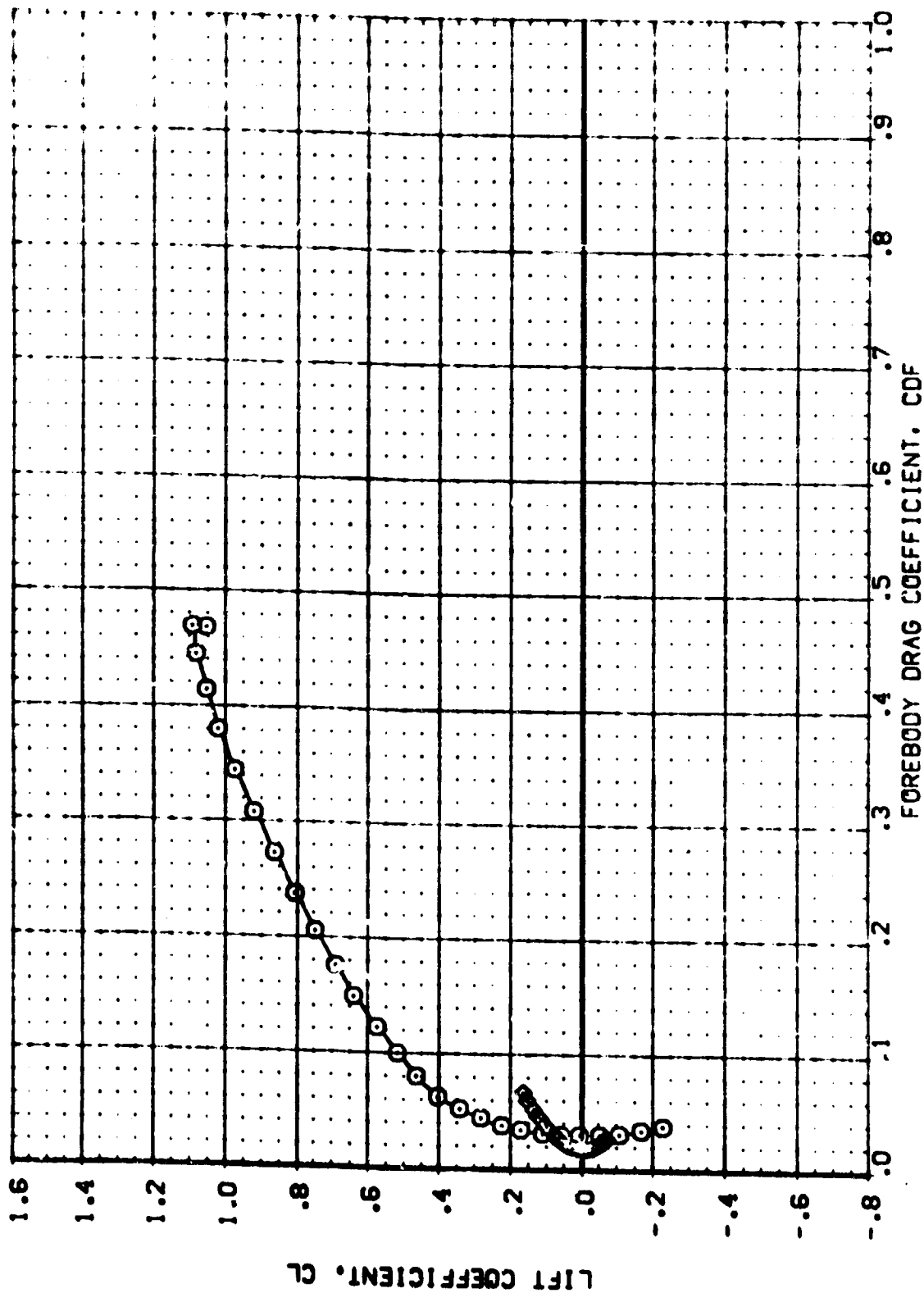
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	ROFLR	BLAP	FWL	REFERENCE INFORMATION
000001	0468 822 07 M4 FS V111 E23 V7 R5	0.00	24.920	-4.200	7.000	SRE 6.003
000002	DATA NC AVAILABLE	0.00	24.920	-4.200	7.000	SRE 7.000
000003	0468 872 07 M4 FS V7 R5	0.00	24.920	-4.200	7.000	DRS 14.000
000004	DATA NC AVAILABLE	0.00	24.920	-4.200	7.000	XMRD 12.000
000005		0.00				WMD 6.000
000006		0.00				ZMRD 12.000
000007		0.00				SCALE 6.000



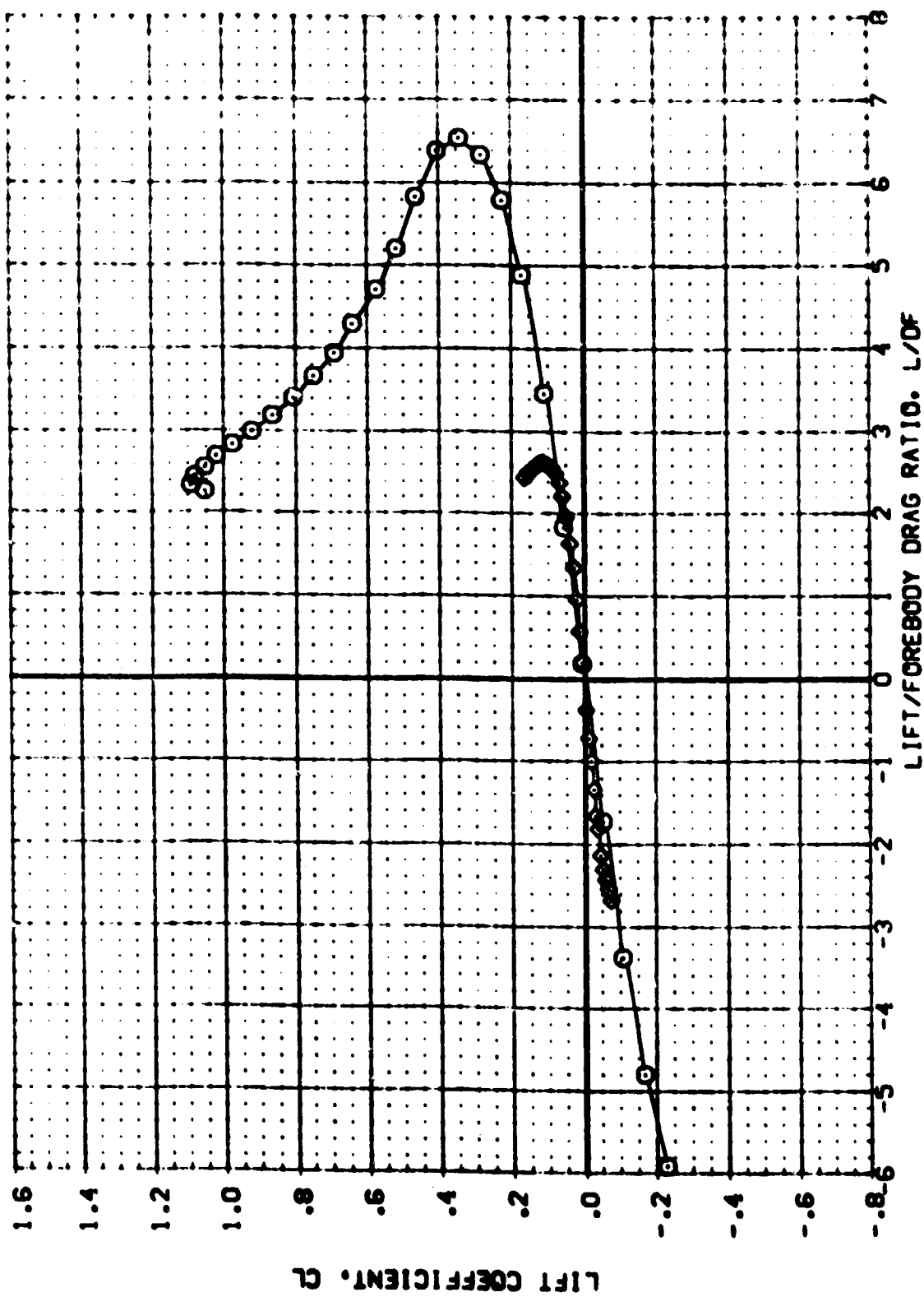
EFFECT OF WING

$$C(MACH) = .61$$

PAGE : 88

[illegible]

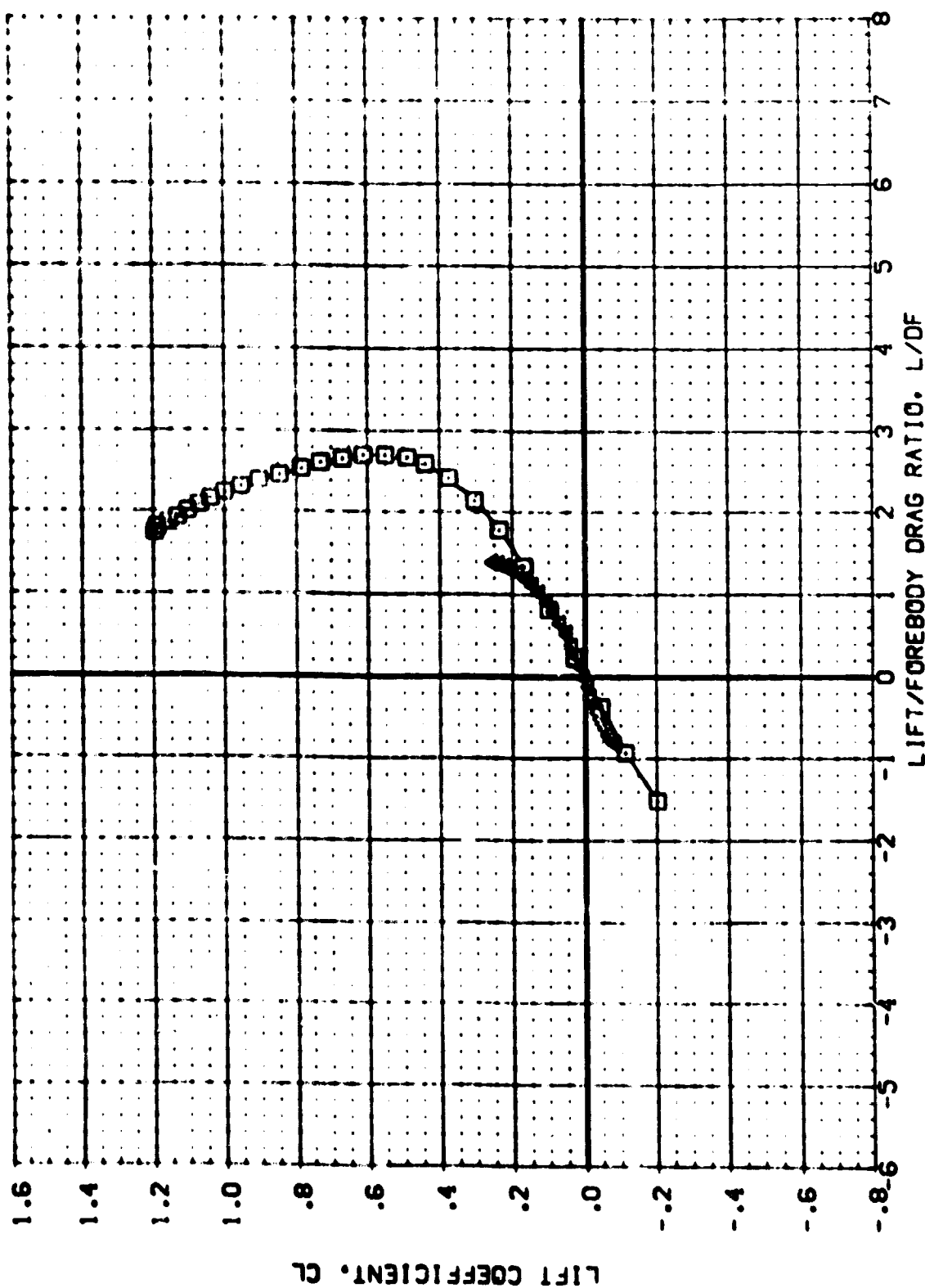
EFFECT OF WING

[illegible]

EFFECT OF WING

(A)YACH = .6:

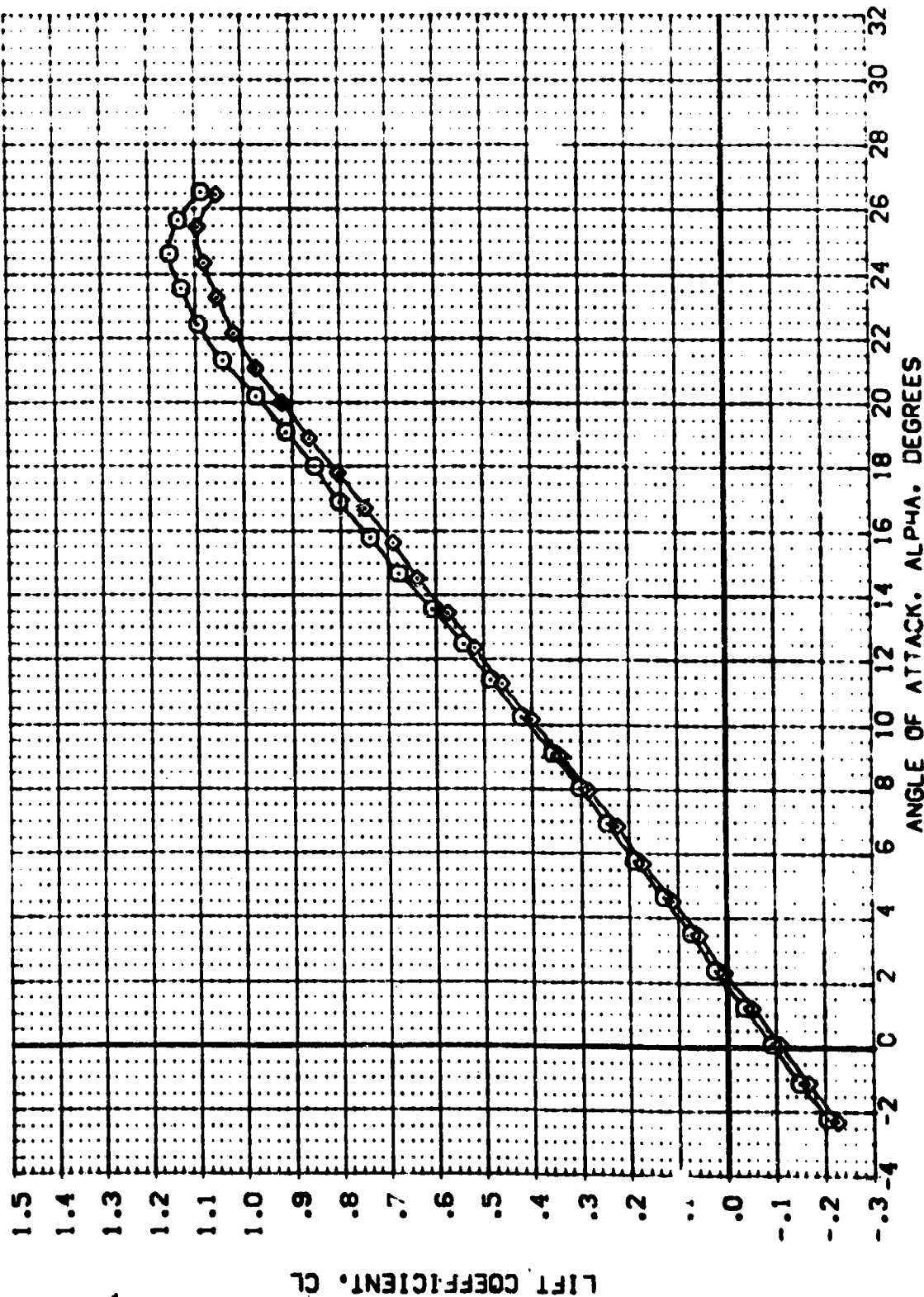
2A5: 92

[illegible]

(B) VAC = 1.2:

DATA SET: SYMBO. CONFIGURATION DESCRIPTION
 1398 319 C7 M4 FS V107 E23 V7 R5
 1478 322 C7 M4 FS V107 E23 V7 R5
 DATA NOT AVAILABLE

ELEVON RUDLER FLAP RWL REFERENCE INFORMATION
 .000 24.920 14.200 7.100 SREF
 .000 24.920 14.200 7.000 LREF
 .000 24.920 14.200 7.000 BRFL
 .000 24.920 14.200 7.000 VREF
 .000 24.920 14.200 7.000 ZREF
 .000 24.920 14.200 7.000 SCALE

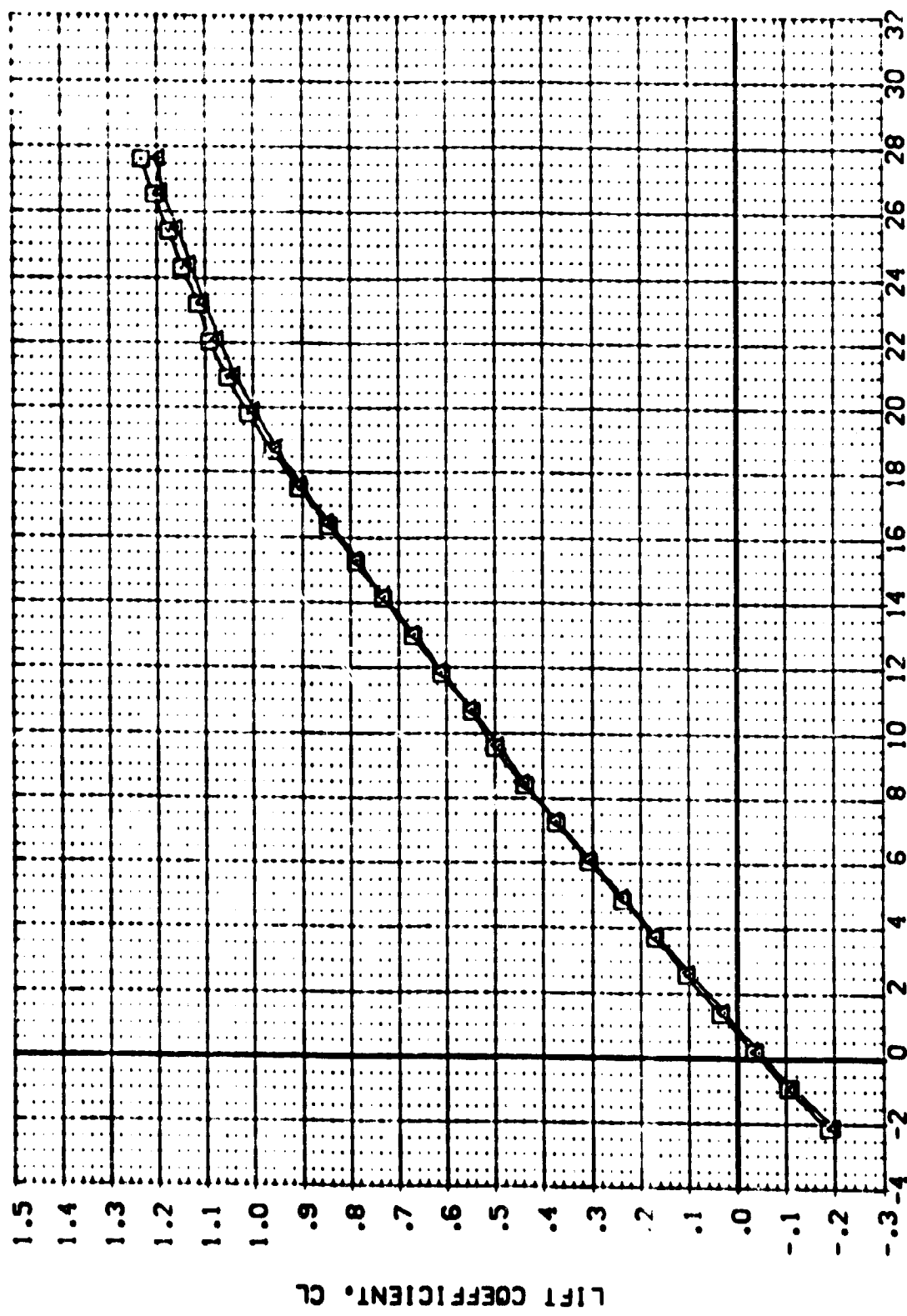


CONFIGURATION COMPARISON FOR 1398 AND 1478

CAMACH = .6:

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 139B NO AVAILABLE
 147B NO AVAILABLE
 139B NO AVAILABLE
 147B NO AVAILABLE

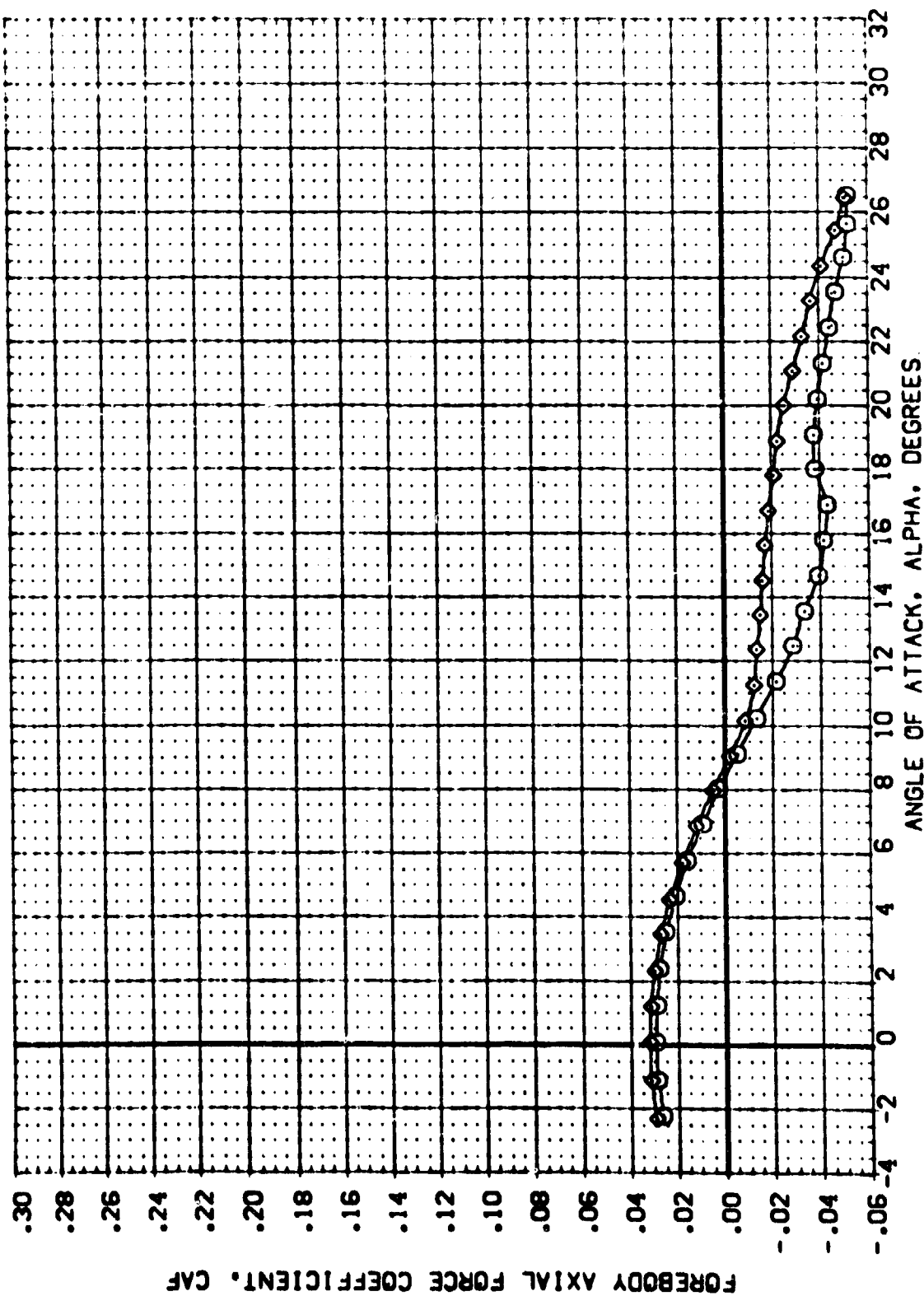
ELEVON RUDLER BLAP EVL REFERENCE INFORMATION
 .000 24.820 14.200 7.000 6.23
 .000 24.820 14.200 7.000 6.23
 .000 24.820 14.200 7.000 6.23
 .000 24.820 14.200 7.000 6.23



CONFIGURATION COMPARISON FOR 139B AND 147B

(B) MACH = 1.21

ELEV	00000	00000	00000	00000
R.O.F.	00000	00000	00000	00000
B.F.	00000	00000	00000	00000
R.V.	00000	00000	00000	00000
PERCENTAGE	00000	00000	00000	00000
NO. OF SHOTS	00000	00000	00000	00000



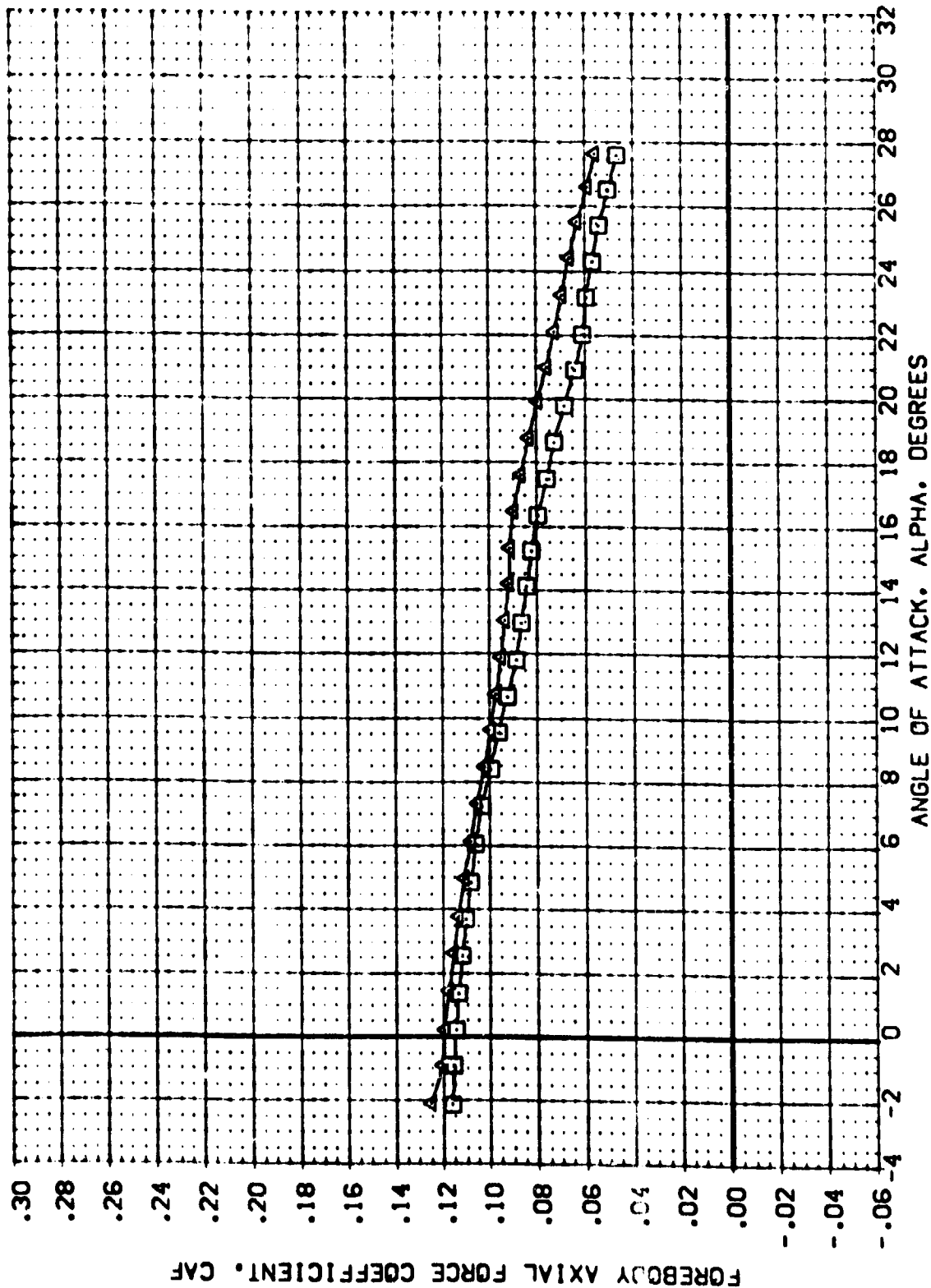
CONFIGURATION COMPARISON FOR 139B AND 147B

$$[A]_{\text{max}}(Y) = \frac{1}{\beta}$$

DATA SET: SYMBO: CONFIGURATION DESCRIPTION: REFERENCE: 100-100-100

ELEVON	ROLL R	BLAP	RMVL	SCALE
.000	24.920	-14.250	7.100	6.000
.000	54.920	-14.250	7.000	7.000
.000	24.920	-14.250	7.000	7.000
.000	54.920	-14.250	7.000	7.000

DATA NOT AVAILABLE
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE



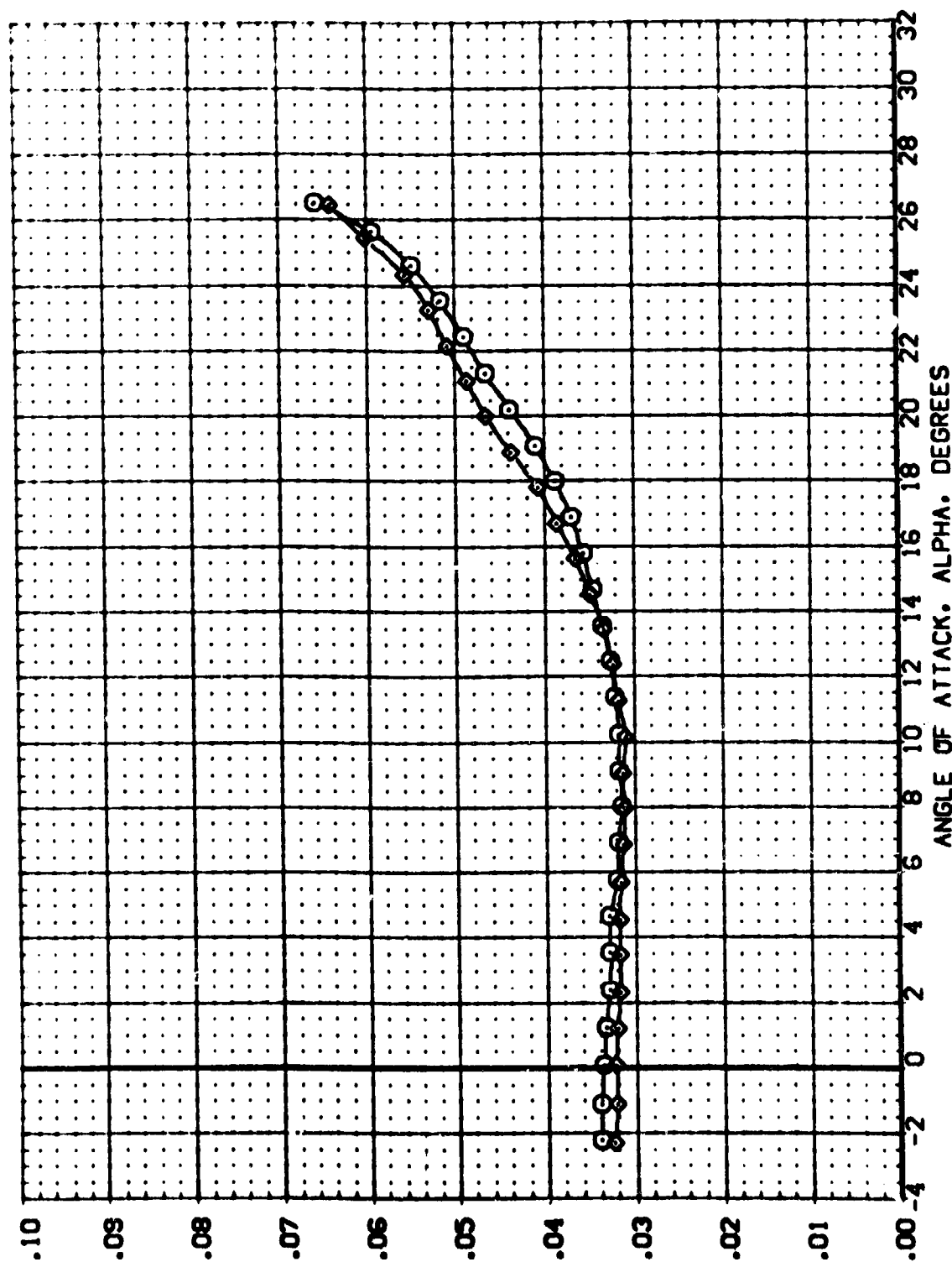
CONFIGURATION COMPARISON FOR 139B AND 147B

(B)MAC- = :.2:

TOTAL BASE AXIAL FORCE COEFFICIENT (CAB + CABC) • CABT

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [C0003] 3468 B19 C7 M4 FS V107 E23 V7 RS
 [C0003] DATA NOT AVAILABLE
 [C0003] 3468 B22 C7 M4 FS V111 E23 V7 RS
 [C0003] DATA NOT AVAILABLE

ELEVON RUDLER FLAP RWL REFERENCE INFORMATION
 .000 24.920 -14.250 7.100 SREF 6053
 .000 54.920 -14.250 7.000 LREF 7.1222
 .000 24.920 -14.250 7.000 BREF 14.5502
 .000 54.920 -14.250 7.000 XREF 2.6171
 .000 6.0000 YREF 6.0000
 .000 6.0000 ZREF 6.0000
 .000 6.0000 SCALE 6.0000



CONFIGURATION COMPARISON FOR 139B AND 147B

(A)MACH = .61

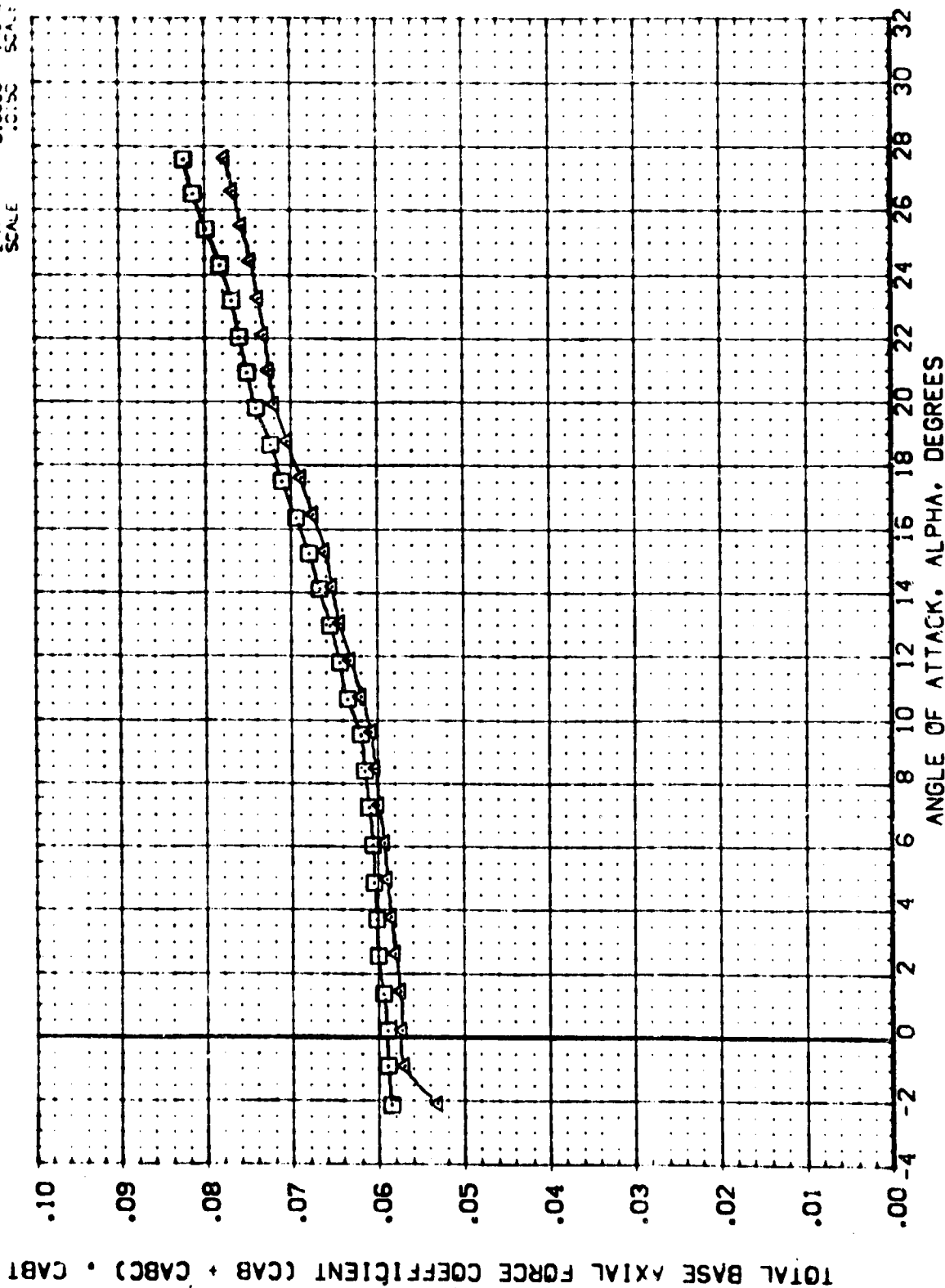
DATA SET SYMBOL CONFIGURATION DESCRIPTION

CD003	()	DATA NOT AVAILABLE
CD004	()	DATA NOT AVAILABLE
CD005	()	DATA NOT AVAILABLE
CD006	()	DATA NOT AVAILABLE

CD003: 148 B22 01 M4 25 V111: E23 V7 R5
 CD004: 148 B22 01 M4 25 V111: E23 V7 R5
 CD005: 148 B22 01 M4 25 V111: E23 V7 R5
 CD006: 148 B22 01 M4 25 V111: E23 V7 R5

ELEVON RUJOLR BLAP RVL REFERENCE INFORMATION

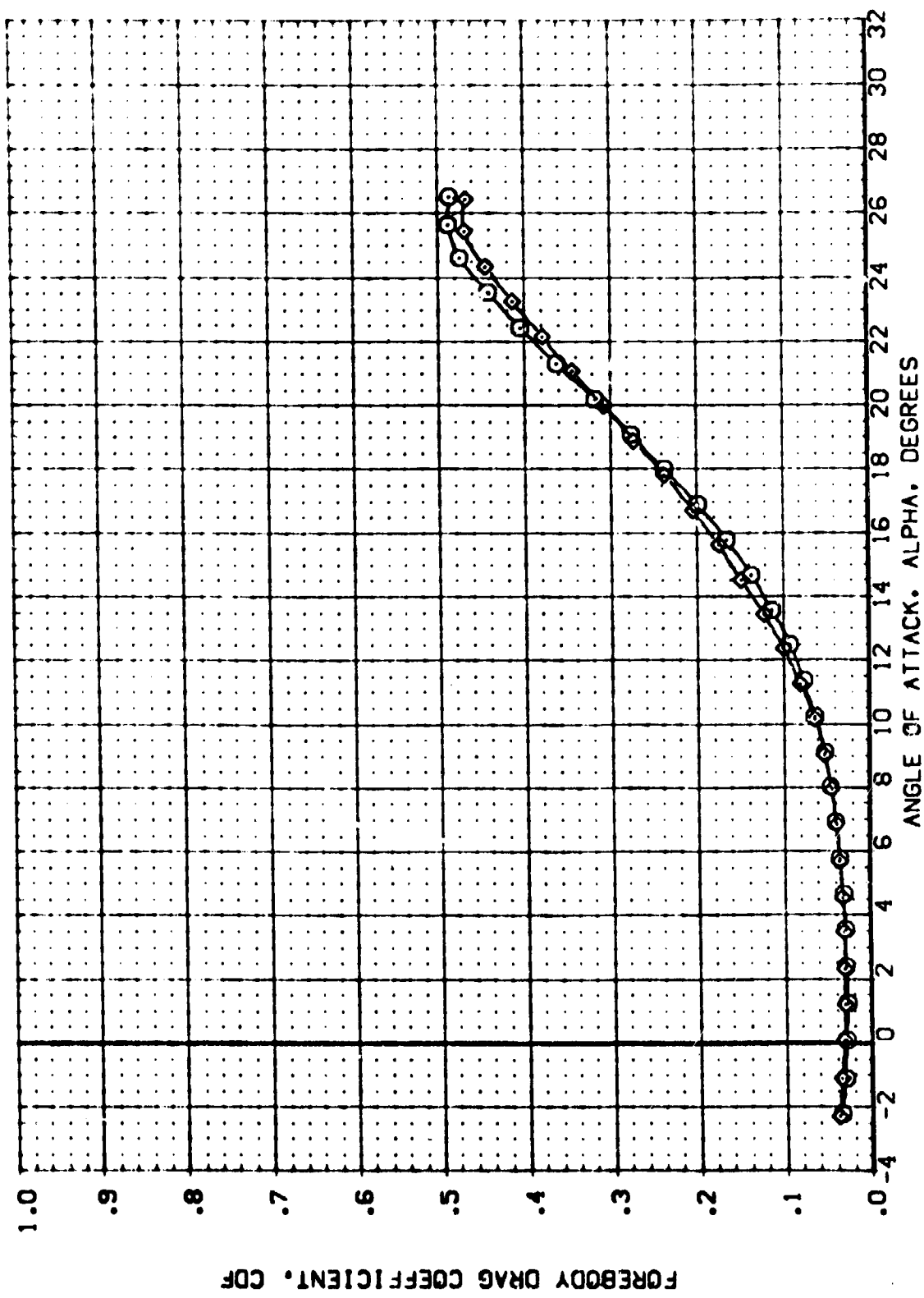
000	24.920	-14.250	7.100	SR	6.000
001	54.920	-14.250	7.000	REF	6.000
002	54.920	-14.250	7.000	REF	6.000
003	54.920	-14.250	7.000	REF	6.000
004	54.920	-14.250	7.000	REF	6.000
005	54.920	-14.250	7.000	REF	6.000
006	54.920	-14.250	7.000	REF	6.000
007	54.920	-14.250	7.000	REF	6.000
008	54.920	-14.250	7.000	REF	6.000
009	54.920	-14.250	7.000	REF	6.000
010	54.920	-14.250	7.000	REF	6.000
011	54.920	-14.250	7.000	REF	6.000
012	54.920	-14.250	7.000	REF	6.000
013	54.920	-14.250	7.000	REF	6.000
014	54.920	-14.250	7.000	REF	6.000
015	54.920	-14.250	7.000	REF	6.000
016	54.920	-14.250	7.000	REF	6.000
017	54.920	-14.250	7.000	REF	6.000
018	54.920	-14.250	7.000	REF	6.000
019	54.920	-14.250	7.000	REF	6.000
020	54.920	-14.250	7.000	REF	6.000
021	54.920	-14.250	7.000	REF	6.000
022	54.920	-14.250	7.000	REF	6.000
023	54.920	-14.250	7.000	REF	6.000
024	54.920	-14.250	7.000	REF	6.000
025	54.920	-14.250	7.000	REF	6.000
026	54.920	-14.250	7.000	REF	6.000
027	54.920	-14.250	7.000	REF	6.000
028	54.920	-14.250	7.000	REF	6.000
029	54.920	-14.250	7.000	REF	6.000
030	54.920	-14.250	7.000	REF	6.000
031	54.920	-14.250	7.000	REF	6.000
032	54.920	-14.250	7.000	REF	6.000
033	54.920	-14.250	7.000	REF	6.000
034	54.920	-14.250	7.000	REF	6.000
035	54.920	-14.250	7.000	REF	6.000
036	54.920	-14.250	7.000	REF	6.000
037	54.920	-14.250	7.000	REF	6.000
038	54.920	-14.250	7.000	REF	6.000
039	54.920	-14.250	7.000	REF	6.000
040	54.920	-14.250	7.000	REF	6.000
041	54.920	-14.250	7.000	REF	6.000
042	54.920	-14.250	7.000	REF	6.000
043	54.920	-14.250	7.000	REF	6.000
044	54.920	-14.250	7.000	REF	6.000
045	54.920	-14.250	7.000	REF	6.000
046	54.920	-14.250	7.000	REF	6.000
047	54.920	-14.250	7.000	REF	6.000
048	54.920	-14.250	7.000	REF	6.000
049	54.920	-14.250	7.000	REF	6.000
050	54.920	-14.250	7.000	REF	6.000
051	54.920	-14.250	7.000	REF	6.000
052	54.920	-14.250	7.000	REF	6.000
053	54.920	-14.250	7.000	REF	6.000
054	54.920	-14.250	7.000	REF	6.000
055	54.920	-14.250	7.000	REF	6.000
056	54.920	-14.250	7.000	REF	6.000
057	54.920	-14.250	7.000	REF	6.000
058	54.920	-14.250	7.000	REF	6.000
059	54.920	-14.250	7.000	REF	6.000
060	54.920	-14.250	7.000	REF	6.000
061	54.920	-14.250	7.000	REF	6.000
062	54.920	-14.250	7.000	REF	6.000
063	54.920	-14.250	7.000	REF	6.000
064	54.920	-14.250	7.000	REF	6.000
065	54.920	-14.250	7.000	REF	6.000
066	54.920	-14.250	7.000	REF	6.000
067	54.920	-14.250	7.000	REF	6.000
068	54.920	-14.250	7.000	REF	6.000
069	54.920	-14.250	7.000	REF	6.000
070	54.920	-14.250	7.000	REF	6.000
071	54.920	-14.250	7.000	REF	6.000
072	54.920	-14.250	7.000	REF	6.000
073	54.920	-14.250	7.000	REF	6.000
074	54.920	-14.250	7.000	REF	6.000
075	54.920	-14.250	7.000	REF	6.000
076	54.920	-14.250	7.000	REF	6.000
077	54.920	-14.250	7.000	REF	6.000
078	54.920	-14.250	7.000	REF	6.000
079	54.920	-14.250	7.000	REF	6.000
080	54.920	-14.250	7.000	REF	6.000
081	54.920	-14.250	7.000	REF	6.000
082	54.920	-14.250	7.000	REF	6.000
083	54.920	-14.250	7.000	REF	6.000
084	54.920	-14.250	7.000	REF	6.000
085	54.920	-14.250	7.000	REF	6.000
086	54.920	-14.250	7.000	REF	6.000
087	54.920	-14.250	7.000	REF	6.000
088	54.920	-14.250	7.000	REF	6.000
089	54.920	-14.250	7.000	REF	6.000
090	54.920	-14.250	7.000	REF	6.000
091	54.920	-14.250	7.000	REF	6.000
092	54.920	-14.250	7.000	REF	6.000
093	54.920	-14.250	7.000	REF	6.000
094	54.920	-14.250	7.000	REF	6.000
095	54.920	-14.250	7.000	REF	6.000
096	54.920	-14.250	7.000	REF	6.000
097	54.920	-14.250	7.000	REF	6.000
098	54.920	-14.250	7.000	REF	6.000
099	54.920	-14.250	7.000	REF	6.000
100	54.920	-14.250	7.000	REF	6.000



CONFIGURATION COMPARISON FOR 139B AND 147B

(B)MAC = 1.21

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	REFLECTOR	REFLAP	RNVL	REFERENCE INFORMATION
000001	1	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	8053
000002	2	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000003	3	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000004	4	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000005	5	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000006	6	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000007	7	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000008	8	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000009	9	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000010	10	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000011	11	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000012	12	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000013	13	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000014	14	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000015	15	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000016	16	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000017	17	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000018	18	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000019	19	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000020	20	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000021	21	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000022	22	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000023	23	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000024	24	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000025	25	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000026	26	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000027	27	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000028	28	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000029	29	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000030	30	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000
000031	31	0488 B-9 C7 M4 FS V107 E23 V7 R5	000	24.920	-14.250	7.000	7.000
000032	32	DATA NOT AVAILABLE	000	54.920	-14.250	7.000	7.000

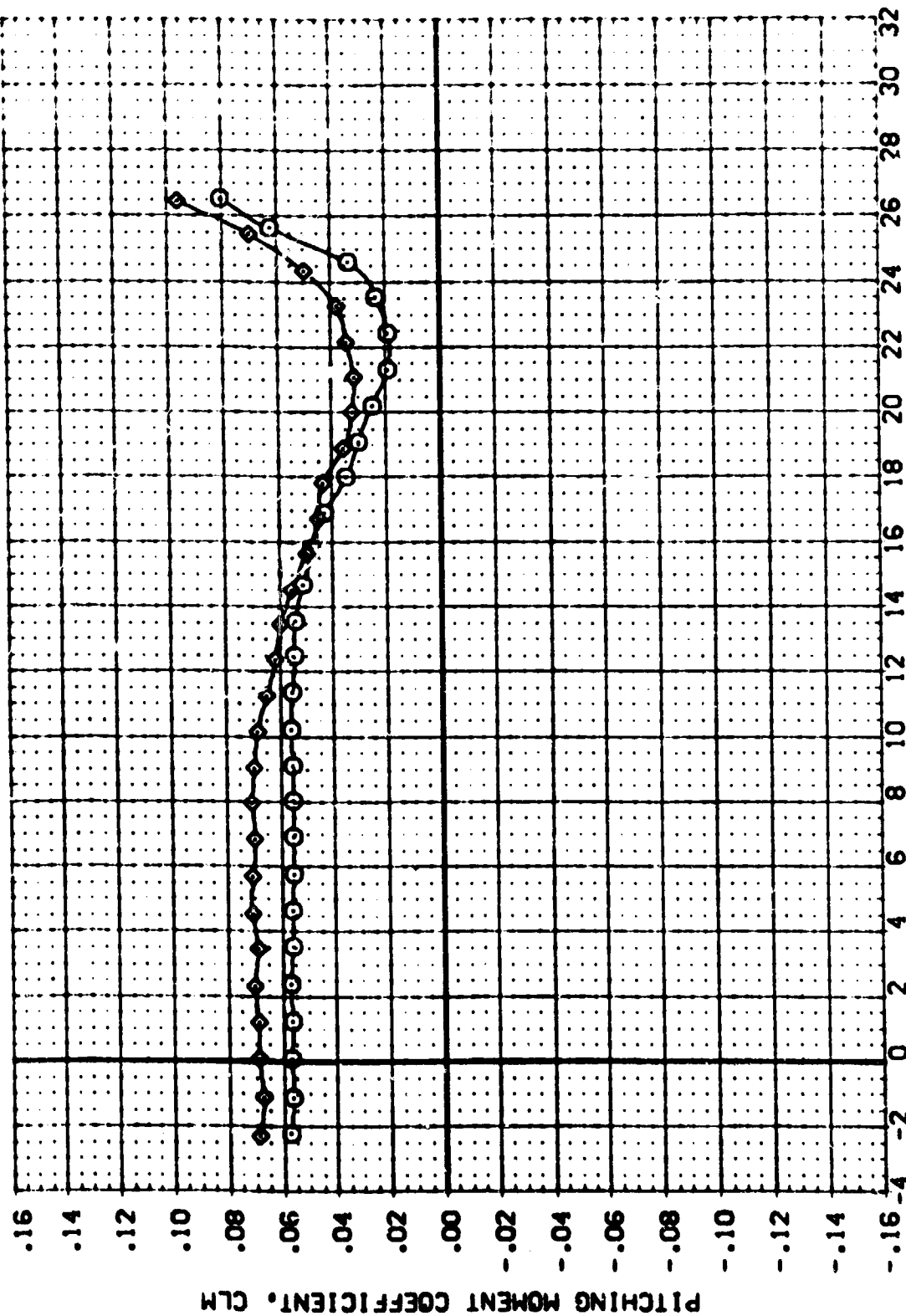


CONFIGURATION COMPARISON FOR 139B AND 147B

(A)MACH = .61

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 1398 9.9 C7 M FS V1.27 E23 V7 RS
 DATA NOT AVAILABLE
 1478 8.72 C7 M FS V1.11 E23 V7 RS
 DATA NOT AVAILABLE

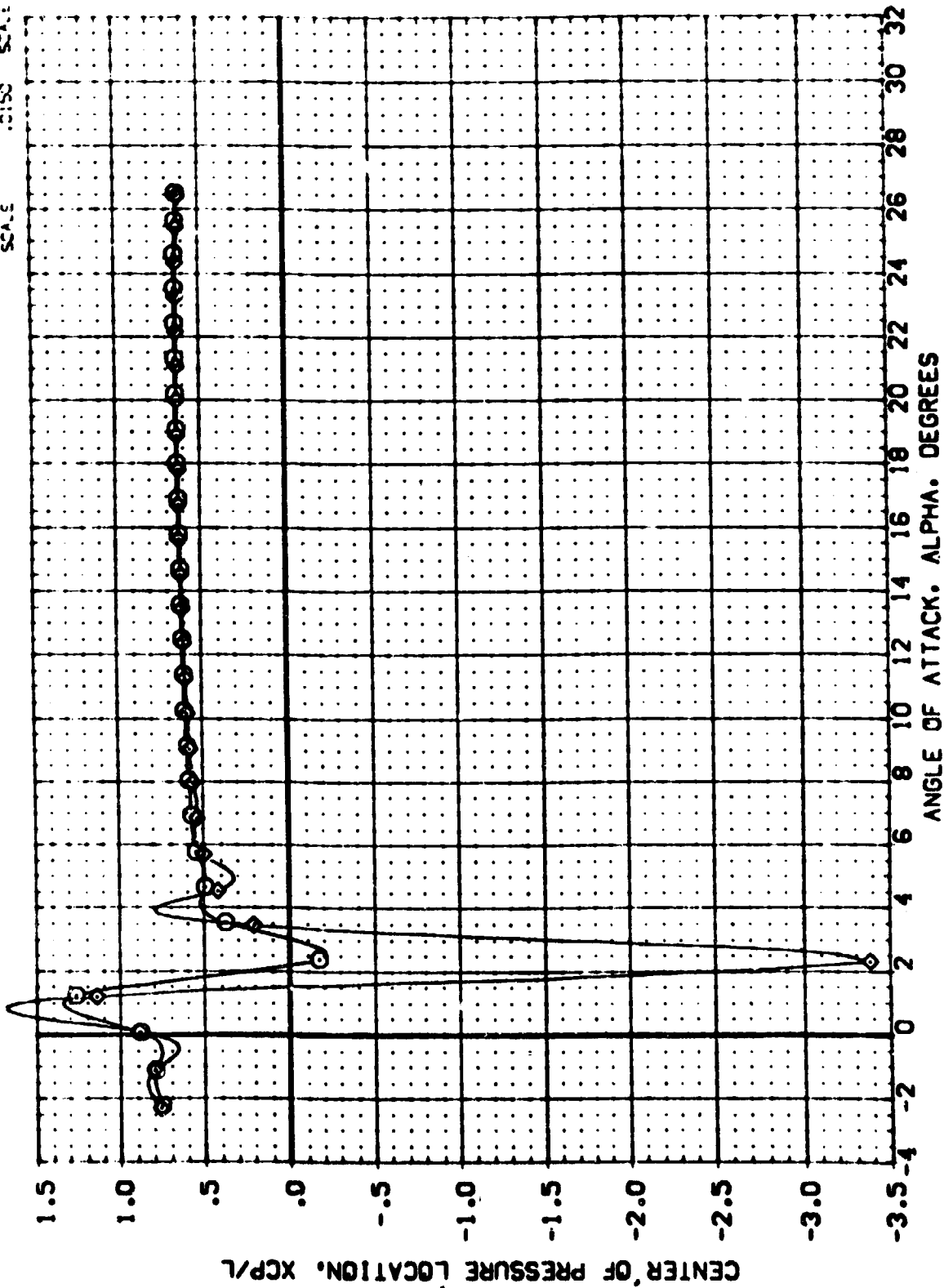
ELEVON REFLECTOR BLAP RVL REFERENCE VOLUME
 000 24.820 14.200 7.100 6033
 000 24.820 14.200 7.100 6033
 000 24.820 14.200 7.100 6033
 000 24.820 14.200 7.100 6033
 SCALE 6



ANGLE OF ATTACK, ALPHA, DEGREES

CONFIGURATION COMPARISON FOR 1398 AND 1478

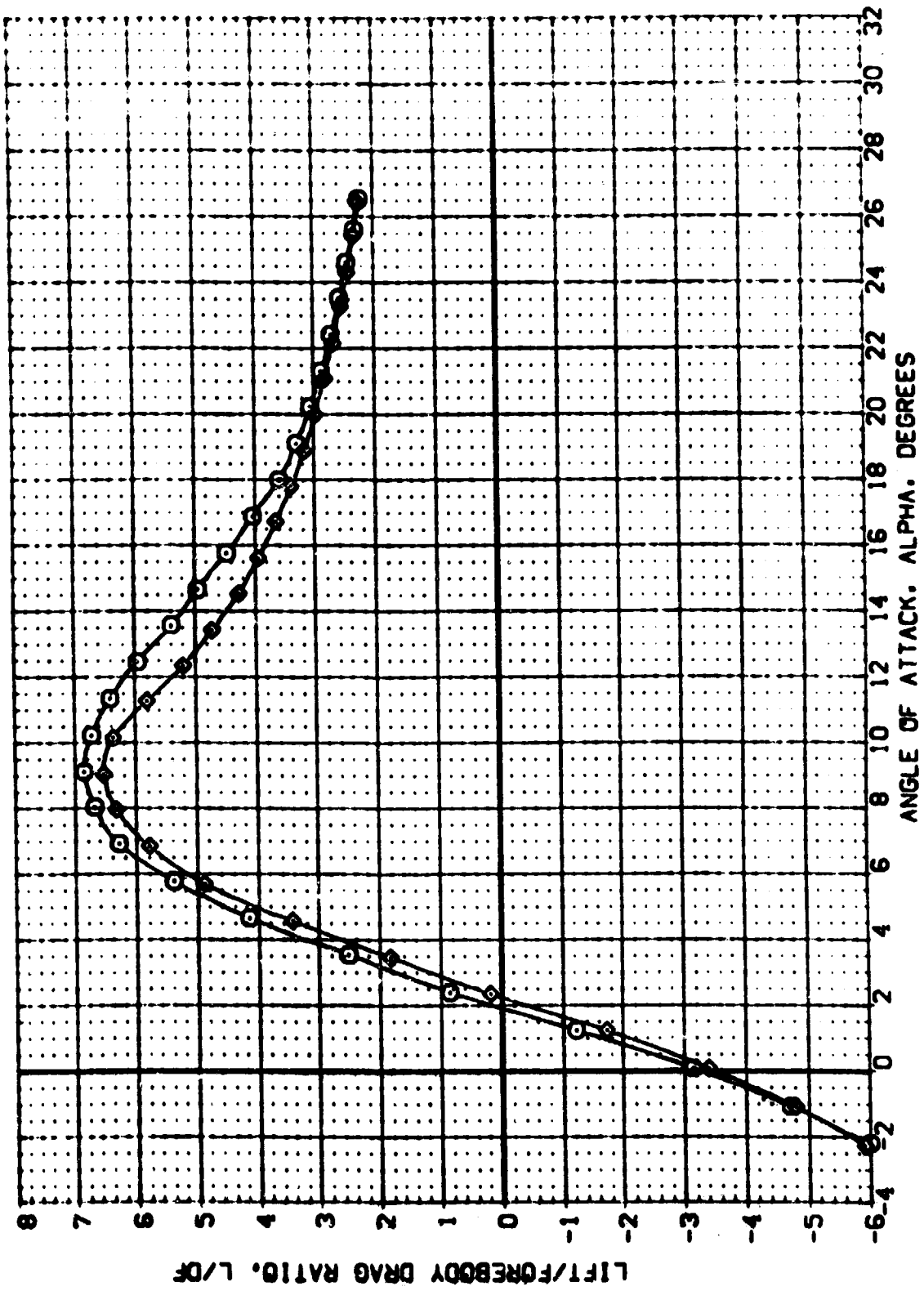
(A)MACH = .6:

[illegible]

CONFIGURATION COMPARISON FOR 1398 AND 1478

MAC-6

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEV	ROLL	SLIP	REF	SCALE
1398	1398 B-1 27 04 15 107 173 17 05	0000	24.800	14.750	6000	1000
1478	1478 B-1 27 04 15 107 173 17 05	0000	24.800	14.750	6000	1000
1478	1478 B-1 27 04 15 107 173 17 05	0000	24.800	14.750	6000	1000
1478	1478 B-1 27 04 15 107 173 17 05	0000	24.800	14.750	6000	1000

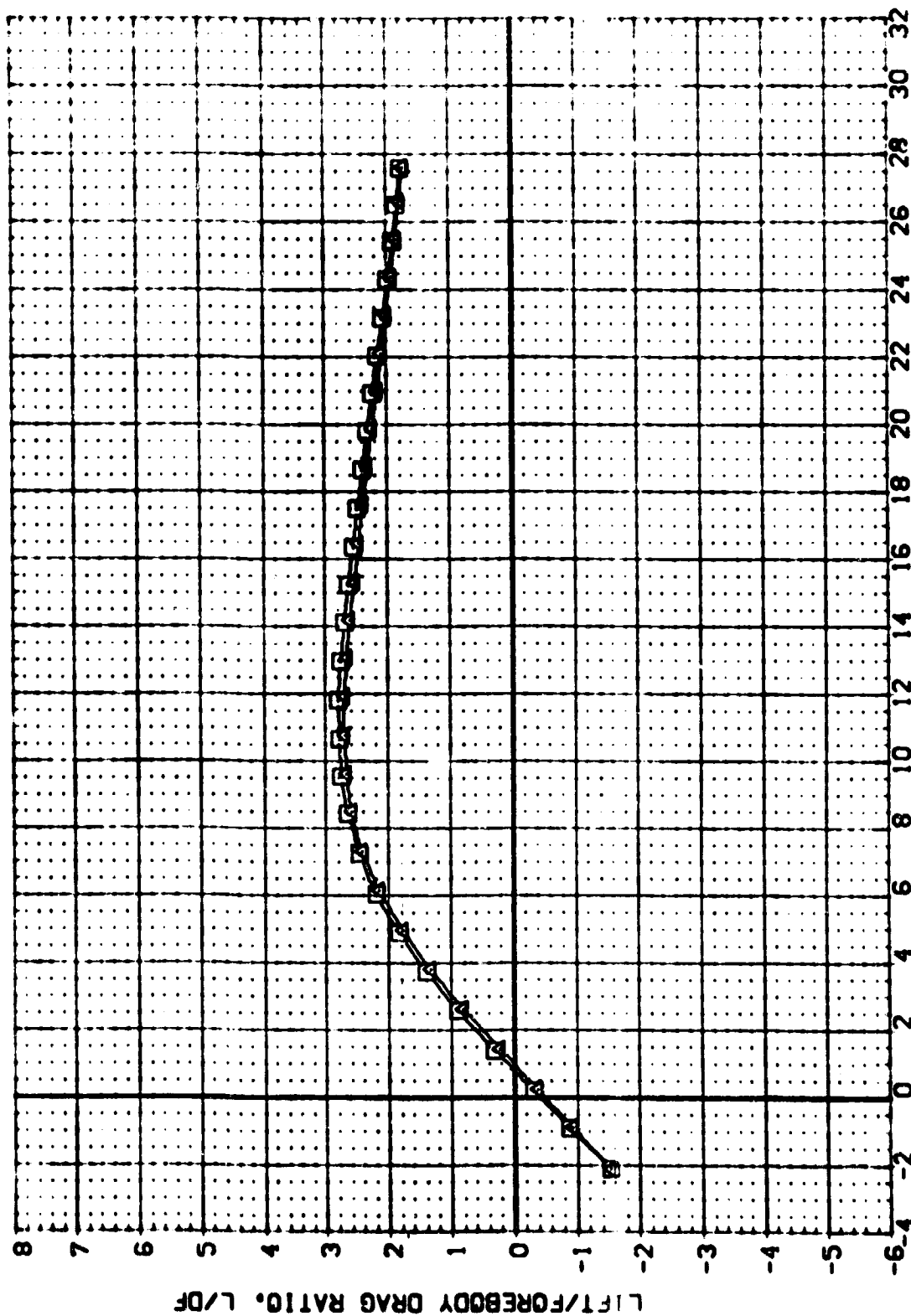


CONFIGURATION COMPARISON FOR 1398 AND 1478

(A)MACH = .61



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AUFLR	BLAP	WV	REFERENCE INFORMATION
00001	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.100	SRF 6053
00002	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 7.122
00003	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 4.020
00004	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 12.600
00005	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000
00006	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000
00007	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000
00008	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000
00009	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000
00010	□	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SRF 6.000

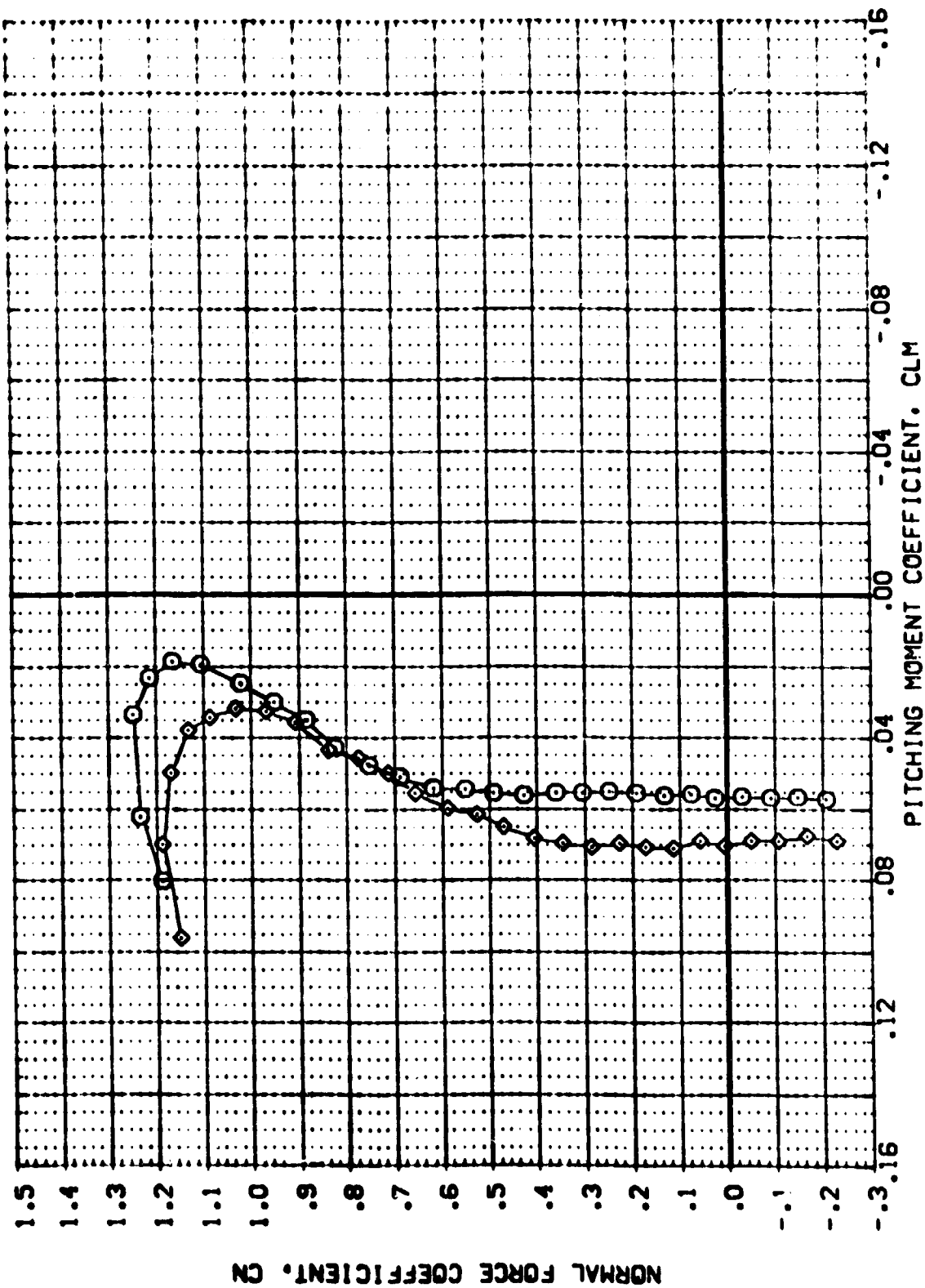


ANGLE OF ATTACK, ALPHA, DEGREES

CONFIGURATION (COMPARISON FOR 139B AND 147B)

(B)MACH = 1.2

ELEVATION	R.D. 9	BLAD	R.V.	REFERENCE	BY COMPANY
8888	24.920	14.200	7.888	622	8229929
8888	24.920	14.200	7.888	622	8229929
8888	24.920	14.200	7.888	622	8229929
8888	24.920	14.200	7.888	622	8229929

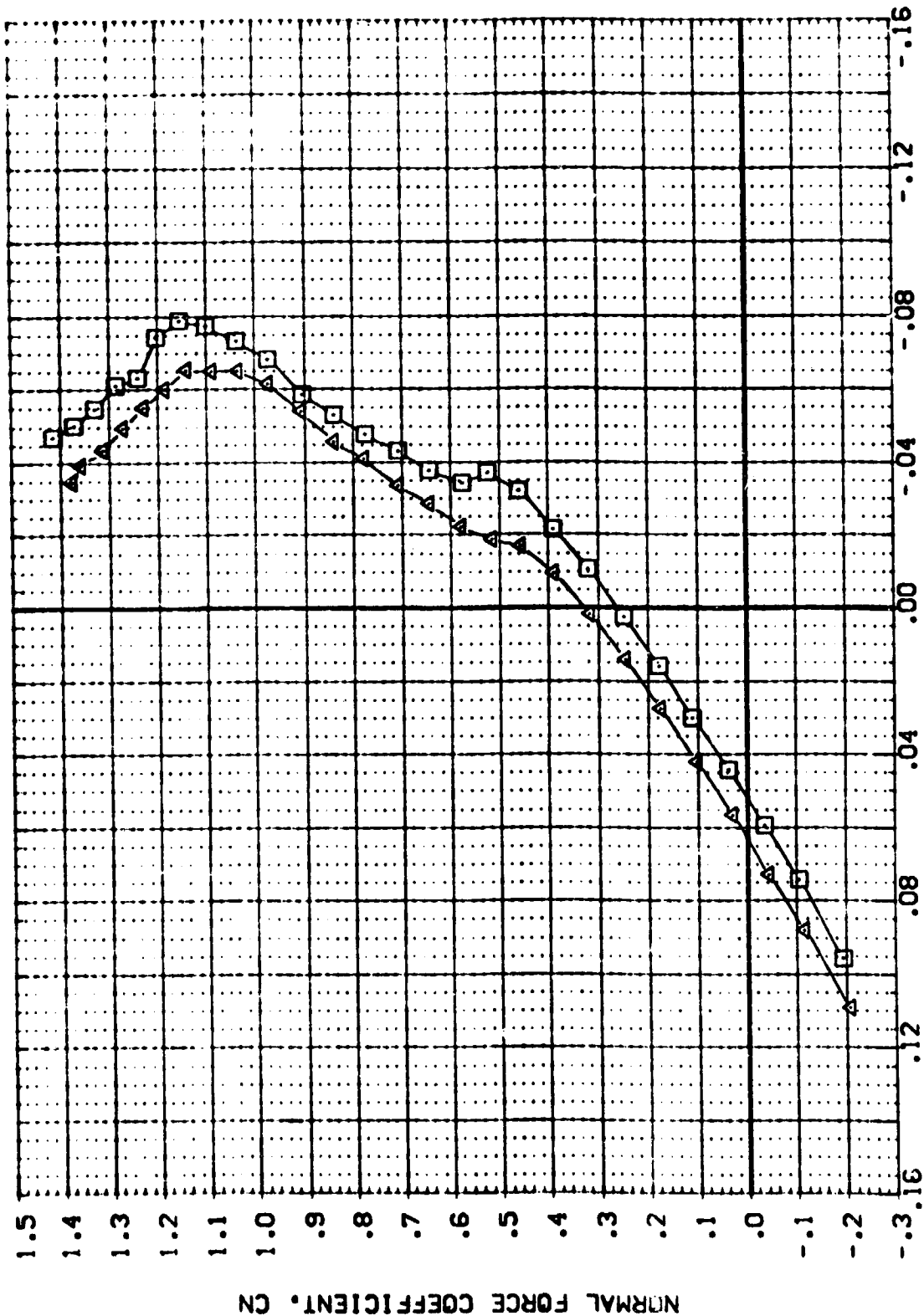


CONFIGURATION COMPARISON FOR T398 AND 1478

$$[A]_{MACH} = .6!$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 1398 319 27 M4 FS V107 E23 V7 RS
 1478 322 27 M4 FS V111 E23 V7 RS

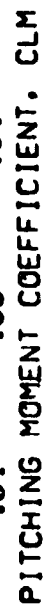
ELEVATION R/D OF R B/LAP R/V/L REFERENCE VOLUME
 .000 24.970 14.250 7.100
 .000 24.970 14.250 7.100
 .000 24.970 14.250 7.100
 .000 24.970 14.250 7.100
 SCALE 6



PITCHING MOMENT COEFFICIENT, CLM

CONFIGURATION COMPARISON FOR 1398 AND 1478

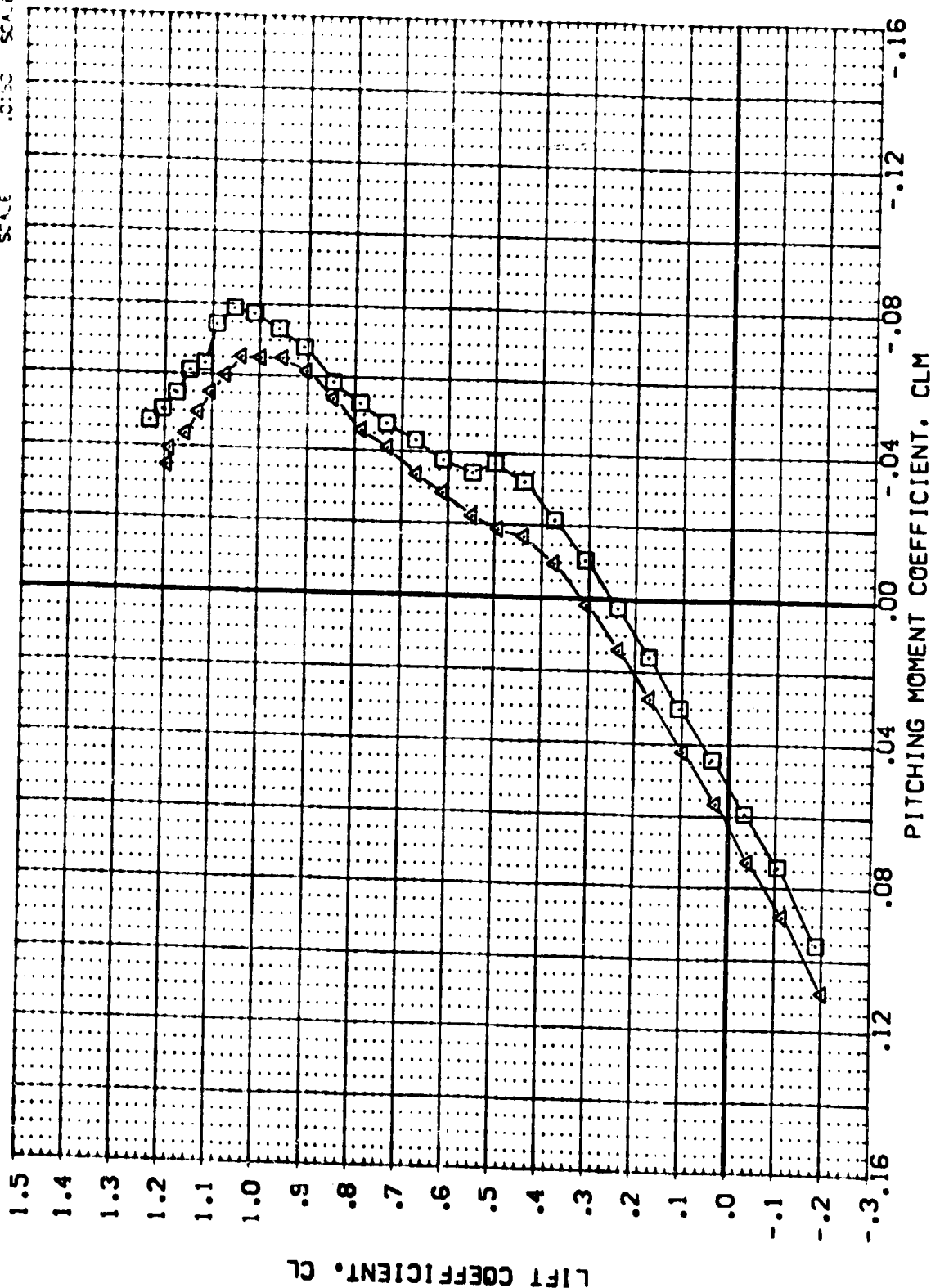
(B)MAC = 1.2:

[illegible]

CONFIGURATION COMPARISON FOR 139B AND 147B

(A)MACH = .61

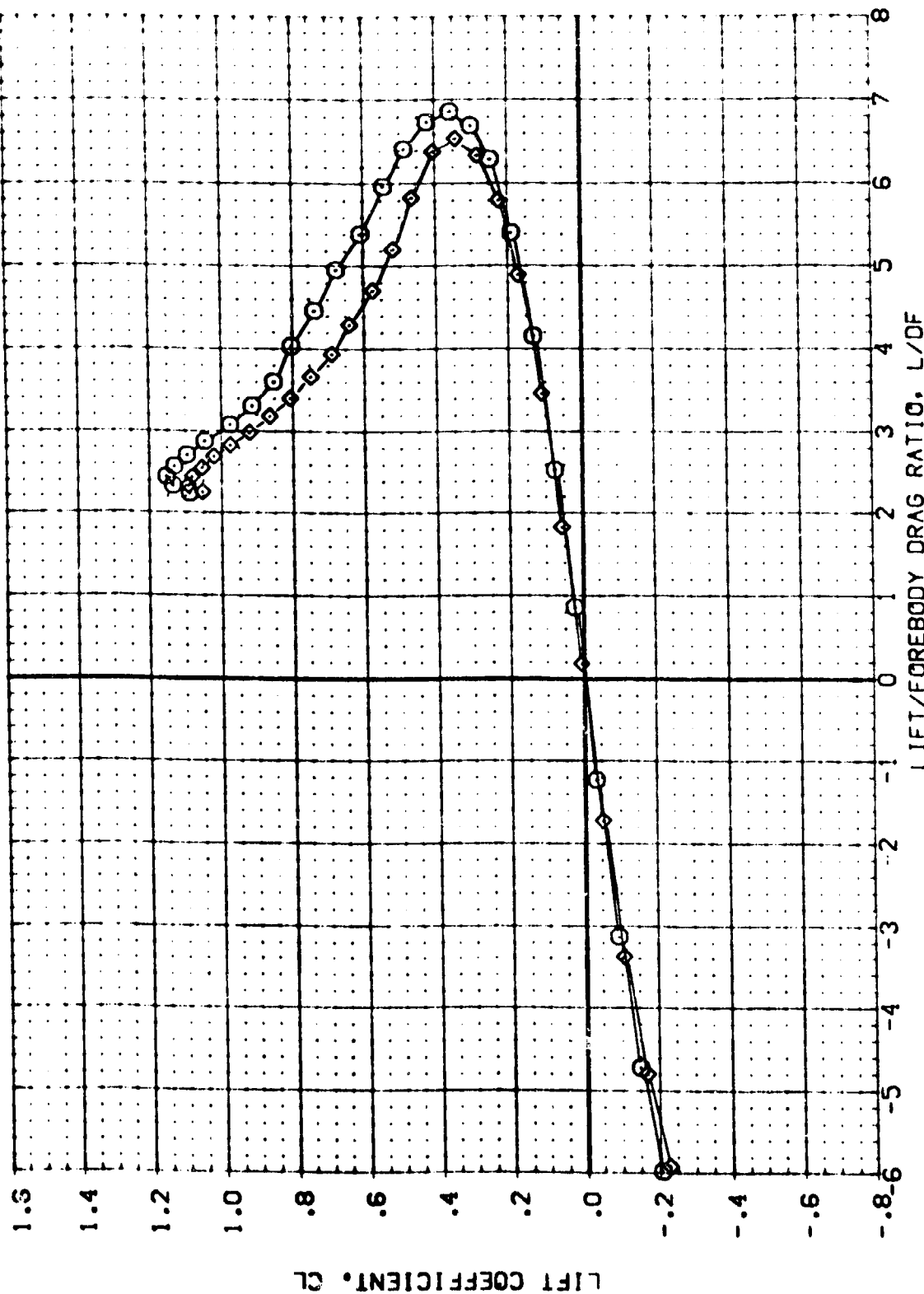
ELEVATION	R.O.F.L.R.	B.F.L.A.P.	Q.W.A.	REFERENCE	VS. S.W.A. 15
00000	24.92000	-4.25000	7.15000	SREF	8.22000
00000	24.92000	-4.25000	7.00000	BRF	7.42000
00000	24.92000	-4.25000	7.00000	WDD	7.42000
00000	24.92000	-4.25000	7.00000	SCALE	6.00000
00000	24.92000	-4.25000	7.00000		8.22000



CONFIGURATION COMPARISON FOR 139B AND 147B

```
(B)MACH = 1.21
```


ELEVATION	RFLR	BFLAP	RVL	REFERENCE	SYMBOLS
00000	24.97	-4	7.10	SDF	8-22-0000
00000	24.97	-4	7.000	DFF	8-22-0000
00000	24.97	-4	7.000	BDF	8-22-0000
00000	24.97	-4	7.000	XDD	8-22-0000
00000	24.97	-4	7.000	ZDD	8-22-0000
00000	24.97	-4	7.000	SCALE	8-22-0000

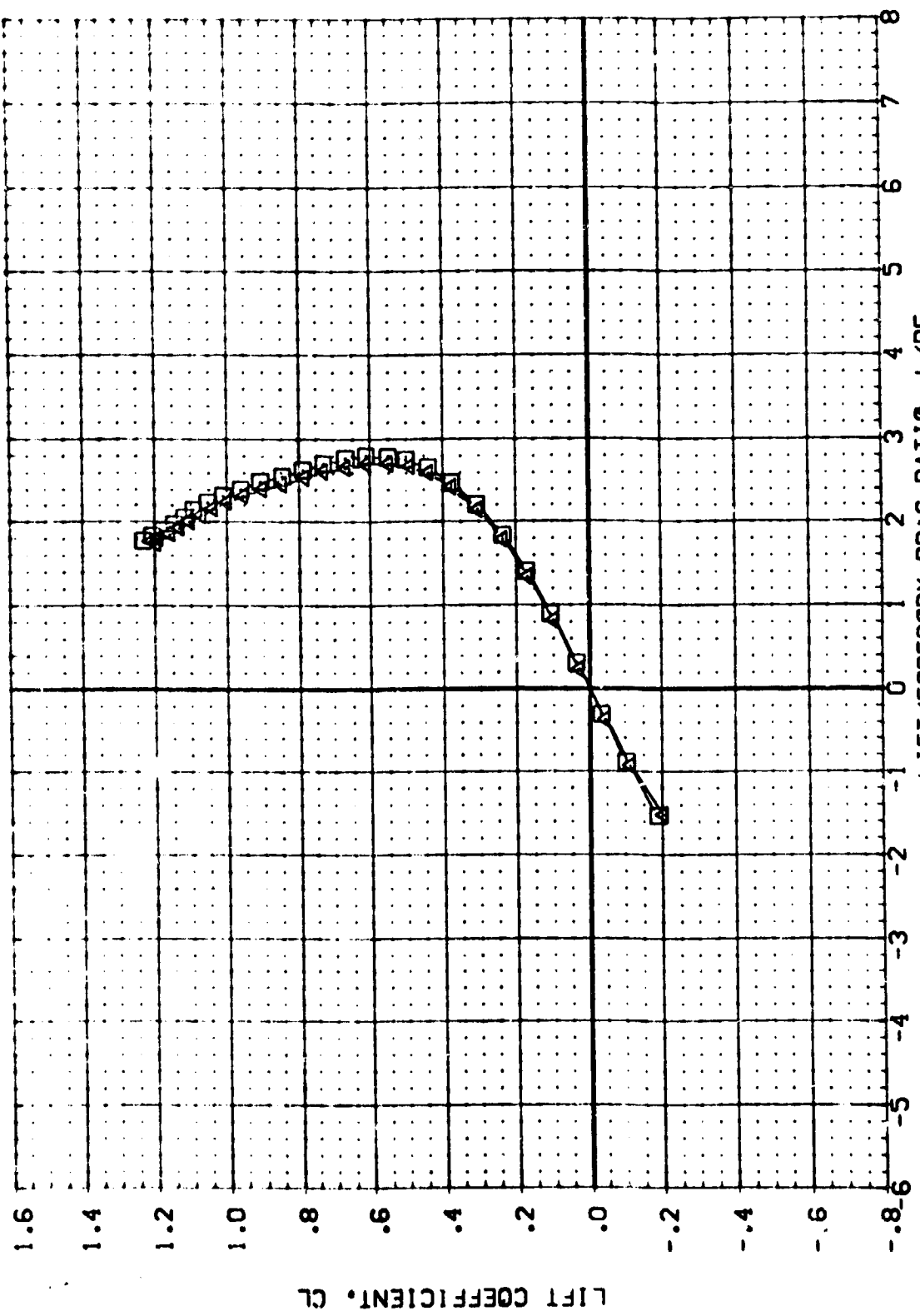


CONFIGURATION COMPARISON FOR 139B AND 147B

CAPACT

11

DATA SET SYNO.	CONFIGURATION DESCRIPTION	ELEVON	RUDFLR	BF LAP	RNAL	REFERENCE INFORMATION
0003	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	SREF 6053
0004	1478 B19 C7 M4 F5 V107 E23 V1 RS	.000	54.920	-14.250	7.000	REF 7.000
0005	DATA NOT AVAILABLE	.000	24.920	-14.250	7.000	BREF 14.000
0006	1478 B27 C7 M4 F5 V107 E23 V1 RS	.000	54.920	-14.250	7.000	YREF 12.000
						YREF 6.000
						SCALE 6.000



CONFIGURATION COMPARISON FOR 139B AND 147B

(B) MACH = 1.2

APPENDIX
TABULATED SOURCE DATA

Plotted data tabulations are available from
Data Management Services on request.

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TUP-276 (0468)

PAGE 1

0468 B22 CT M4 FS W111 E23 V7 R5

(R00011) (16 AUG 73)

REFERENCE DATA

SREF = .0033 50.FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUOFLR = 24.920
 BFAP = -14.250 RM/L = 7.000

RUN NO. 2 / 2 W/L = 7.10 GRADIENT INTERVAL = -5.00 / 5.00

WACH	ALPHA	ON	CAF	CLM	CT	CYN	CBL	CAB	CABC	XCP/L
.611	-2.290	-22770	.02020	.06880	-.00750	.00030	-.00170	.02380	.00670	.76310
.611	-1.100	-10670	.03140	.06760	-.00560	.00090	-.00170	.02350	.00670	.60120
.611	.070	-10680	.03170	.06900	-.00430	.00100	-.00180	.02360	.00670	.60950
.611	1.210	-.05150	.03140	.06910	-.00340	.00100	-.00180	.02350	.00660	1.14480
.611	2.320	.00640	.02970	.07020	-.00310	.00100	-.00190	.02330	.00650	-3.38310
.611	3.440	.09740	.02700	.06900	-.00180	.00080	-.00180	.02350	.00650	.21930
.611	4.550	.11270	.02310	.07090	-.00170	.00120	-.00210	.02350	.00650	.42020
.611	5.690	.17350	.01760	.07080	-.00160	.00090	-.00190	.02310	.00650	.50210
.611	6.880	.22570	.01170	.06960	-.00080	.00070	-.00190	.02300	.00650	.53620
.611	7.990	.28580	.00510	.07080	.00000	.00080	-.00270	.02290	.00650	.56090
.611	9.040	.34620	-.00210	.06970	-.00140	.00040	-.00220	.02300	.00650	.57760
.611	10.140	.40680	-.00680	.06840	-.00020	-.00010	-.00220	.02290	.00640	.59070
.611	11.250	.47010	-.01230	.06490	.00300	-.00060	-.00250	.02340	.00640	.60100
.611	12.350	.52840	-.01360	.06170	.00600	-.00160	-.00260	.02360	.00660	.61690
.611	13.440	.58600	-.01510	.05970	.00930	-.00130	-.00230	.02460	.00660	.61450
.611	14.530	.65640	-.01610	.05540	.00420	-.00110	-.00190	.02560	.00950	.62160
.611	15.620	.71170	-.01740	.04990	.00560	-.00100	-.00190	.02660	.01000	.62600
.611	16.720	.77470	-.01910	.04560	.00600	-.00100	-.00170	.02670	.01060	.63020
.611	17.810	.83600	-.02060	.04350	.00530	-.00120	-.00080	.02960	.01120	.63270
.611	18.900	.90540	-.02240	.03570	.00570	-.00130	-.00080	.03140	.01230	.63730
.611	19.990	.96670	-.02510	.03250	.00570	-.00090	-.00110	.03340	.01310	.63950
.611	21.080	1.03350	-.02900	.03170	.00650	-.00030	-.00070	.03510	.01360	.64050
.611	22.170	1.08700	-.03370	.03430	.00590	.00050	-.00080	.03670	.01420	.64020
.611	23.260	1.13190	-.03650	.03800	.00220	.00170	-.00250	.03600	.01500	.63950
.611	24.350	1.16910	-.04060	.04970	.00010	.00230	-.00170	.03990	.01560	.63620
.611	25.450	1.18920	-.04663	.06990	-.00200	.00130	-.00160	.04290	.01730	.63020
.611	26.440	1.15170	-.05040	.09610	.00710	.00050	-.00160	.04560	.01840	.62110
	GRADIENT	.04970	-.00090	.00032	.00076	.00005	-.00005	-.00007	-.00004	-.20389

QAG8 822 C7 M4 F5 M11 E23 V7 R5

(NR0001) (16 AUG 73)

REFERENCE DATA

BRDF = .6033 INCHES
 LREF = 7.1222 INCHES
 BRDF = 14.3902 INCHES
 SCALE = .0130 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUOTLR = 24.920
 BFLAP = -14.230 RN/L = 7.000

RUN NO. 18/ 1 RN/L = 6.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CH	CAF	CLM	CY	CYN	CEL	CAB	CABC	KCP/L
.907	-2.220	-2.5127	.04630	.11630	-.00820	.00000	-.00060	.02400	.00620	.79690
.907	-1.970	-2.2010	.04740	.10760	-.00750	.00000	-.00090	.02320	.00900	.84970
.907	.240	-.12100	.04690	.10270	-.00750	.00000	-.00040	.02330	.00900	.94420
.907	1.420	-.04810	.04640	.09300	-.00770	.00000	-.00030	.02360	.00900	1.37810
.907	2.900	.02180	.04640	.08720	-.00690	-.00030	-.00030	.02320	.00690	-.83030
.907	3.790	.09320	.04600	.08130	-.00430	-.00030	-.00170	.02280	.00690	.33090
.907	4.920	.16300	.04670	.07600	-.00470	-.00020	-.00150	.02230	.00640	.48030
.907	6.080	.23090	.04610	.06840	-.00410	.00000	-.00070	.02280	.00650	.34270
.907	7.240	.29370	.04710	.06040	-.00330	.00000	-.00070	.02320	.00670	.37810
.907	8.360	.33260	.04610	.05410	-.00340	.00000	-.00100	.02390	.00630	.39340
.907	9.490	.41440	.04920	.04330	-.00070	.00010	-.00130	.02450	.00610	.61340
.907	10.610	.47900	.04430	.03320	.00240	-.00140	-.00150	.02320	.00630	.52630
.907	11.740	.54010	.04460	.02390	.00210	-.00160	-.00060	.02390	.00670	.63330
.907	12.880	.60820	.04560	.00970	.00240	-.00130	-.00070	.02690	.01010	.64630
.907	13.990	.67330	.04550	.00070	.00150	.00000	-.00110	.02670	.01060	.65140
.907	15.080	.73130	.04430	-.00300	.00240	-.00060	-.00020	.02940	.01130	.65340
.907	16.230	.78430	.04290	-.00720	.00460	-.00060	-.00060	.03260	.01190	.65290
.907	17.370	.83400	.04070	.00120	.00340	-.00130	-.00000	.03260	.01270	.65170
.907	18.460	.88790	.03690	.00400	.00370	-.00110	-.00030	.03440	.01330	.65020
.907	19.610	.94190	.03630	.01170	.00330	-.00100	-.00090	.03630	.01470	.64740
.907	20.710	1.00620	.03360	.02460	.00320	-.00140	.00030	.03790	.01490	.64290
.907	21.790	1.04040	.03110	.03930	.00310	-.00040	.00010	.03990	.01570	.63790
.907	22.900	1.07490	.02740	.05960	.01350	-.00090	-.00120	.04210	.01690	.63140
.907	23.930	1.04790	.02800	.06640	.01690	-.00090	-.00120	.04490	.01630	.62190
.907	25.010	1.03360	.02120	.11220	.01270	-.00030	-.00070	.04690	.02140	.61260
.907	26.060	1.00930	.01330	.12370	.00960	-.00030	-.00110	.05190	.02130	.60940
.907	27.120	1.04020	.01130	.11980	.00310	-.00030	.00010	.05390	.02210	.61200
.907		.06697	.00022	-.00369	.00033	-.00005	-.00013	-.00320	-.00010	-.11336

GRADIENT

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TWT-276 (0468)

PAGE 3

OASB 822 C7 M4 F5 W11 E23 V7 R3

(R00002) (16 AUG 75)

REFERENCE DATA

SRPZ = .0033 58-FT. YMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BRPZ = 14.0902 INCHES YMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUPLR = 34.980
 BLAP = -14.250 RN/L = 7.000

RUN NO. 21/ 1 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	ON	CAP	CLM	CT	CTN	CEL	CAB	CABC	KCP/L
1.207	-2.130	-20790	.12390	.10640	-.00070	-.00010	-.00060	.03630	.01660	.64350
1.207	-.910	-11640	.12000	.08810	-.00060	-.00010	-.00060	.04010	.01700	.93030
1.207	.210	-.04390	.11950	.07290	-.00040	-.00000	-.00100	.04030	.01700	1.26160
1.207	1.420	.03020	.11760	.05670	-.00060	.00000	-.00000	.04050	.01700	-.03830
1.207	2.620	.10260	.11350	.04210	-.00090	.00000	-.00090	.04100	.01700	.50060
1.207	3.790	.17490	.11340	.02770	-.00040	-.00000	-.00000	.04140	.01710	.59360
1.207	4.960	.24590	.11110	.01430	-.00030	-.00000	-.00030	.04170	.01720	.63030
1.207	6.130	.31750	.10640	.00180	-.00000	-.00000	-.00000	.04200	.01750	.64960
1.207	7.300	.39000	.10390	-.00940	-.00020	-.00000	-.00020	.04240	.01740	.66060
1.207	8.480	.45830	.10210	-.01690	-.00000	-.00000	-.00000	.04260	.01750	.66340
1.207	9.610	.51330	.09970	-.01870	-.00000	-.00000	-.00000	.04310	.01770	.66520
1.207	10.750	.57840	.09730	-.02240	-.00000	-.00000	-.00000	.04360	.01810	.66810
1.207	11.910	.64360	.09510	-.02870	-.00010	-.00000	.00000	.04400	.01850	.66930
1.207	13.060	.70790	.09370	-.03390	-.00000	-.00000	-.00000	.04460	.01840	.66930
1.207	14.200	.77680	.09190	-.04110	-.00000	-.00000	.00000	.04640	.01890	.67190
1.207	15.320	.83940	.09140	-.04360	-.00010	-.00000	.00000	.04700	.01910	.67360
1.207	16.460	.90700	.08970	-.05420	.00000	-.00000	.00000	.04790	.01960	.67510
1.207	17.620	.97420	.08660	-.06150	.00160	-.00000	.00000	.04890	.02000	.67500
1.207	18.770	1.03470	.08340	-.06570	.00160	-.00000	.00000	.05000	.02030	.67380
1.207	19.910	1.09000	.07960	-.06900	.00140	-.00000	.00000	.05100	.02090	.67300
1.207	21.020	1.14120	.07600	-.06550	.00160	-.00000	.00000	.05190	.02110	.67090
1.207	22.130	1.18710	.07260	-.06000	.00350	-.00000	.00000	.05190	.02120	.66840
1.207	23.260	1.22910	.06940	-.05510	.00360	-.00000	.00000	.05270	.02160	.66610
1.207	24.410	1.27230	.06640	-.04940	.00420	-.00000	.00000	.05270	.02190	.66410
1.207	25.520	1.31180	.06270	-.04350	.00390	-.00000	.00000	.05340	.02230	.66250
1.207	26.620	1.35660	.05870	-.03920	.00430	-.00000	.00000	.05410	.02260	.66110
1.207	27.690	1.37790	.05320	-.03450	.00330	.00000	.00000	.05480	.02260	.66110
1.207	GRADIENT	.06317	-.00186	-.01321	.00035	-.00000	.00000	.05059	.02004	-.06321

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (ONER)

PAGE 4

QAG8 922 C7 M4 F5 W11 E23 V7 R5

(RDR003) (16 AUG 73

REFERENCE DATA

SHEF = .6033 56.71. XMRP = 12.6171 INCHES
 LMRP = 7.1222 INCHES YMRP = .0000 INCHES
 BMRP = 14.0902 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUDFLR = 34.920
 SFLAP = -14.250 RN/L = 11.300

RUN NO. 33/ 1 RN/L = 11.30 GRADIENT INTERVAL = -.5.01/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.998	-.630	-.08270	.11730	.02430	-.00390	-.00040	-.00010	.01860	.00900	.79440
1.998	-.250	-.01800	.11240	.01860	-.00300	-.00040	-.00010	.02130	.00920	1.00700
1.998	1.360	.01900	.11090	.01400	-.00320	-.00040	-.00010	.02140	.00880	.30670
1.998	1.900	.04800	.10940	.00990	-.00170	-.00050	-.00010	.02140	.00910	.57580
1.998	2.770	.08260	.10790	.00500	-.00160	-.00060	-.00010	.02150	.00910	.62950
1.998	3.640	.11740	.10630	.00060	-.00180	-.00060	-.00010	.02160	.00910	.64970
1.998	4.530	.15220	.10520	-.00390	-.00280	-.00070	-.00010	.02170	.00910	.66800
1.998	5.420	.18790	.10400	-.00820	-.00260	-.00070	-.00010	.02180	.00920	.67140
1.998	6.310	.22210	.10270	-.01180	-.00130	-.00070	-.00010	.02200	.00930	.67310
1.998	7.180	.25560	.10120	-.01480	-.00110	-.00070	-.00010	.02220	.00940	.67410
1.998	8.040	.28790	.10000	-.01740	-.00070	-.00060	-.00010	.02240	.00950	.67360
1.998	8.870	.32120	.09850	-.01900	-.00100	-.00060	-.00010	.02260	.00960	.67310
1.998	9.710	.35440	.09680	-.02040	-.00120	-.00050	-.00010	.02280	.00960	.67260
1.998	10.590	.38940	.09490	-.02220	-.00130	-.00050	-.00010	.02300	.00950	.67200
1.998	11.470	.42530	.09330	-.02330	-.00190	-.00050	-.00010	.02320	.01000	.67170
1.998	12.340	.46200	.09130	-.02490	-.00150	-.00030	-.00010	.02350	.01020	.67190
1.998	13.210	.49910	.08990	-.02710	-.00220	-.00030	-.00010	.02360	.01030	.67130
1.998	14.080	.53410	.08750	-.02820	-.00200	-.00010	-.00010	.02400	.01040	.67040
1.998	14.940	.56880	.08420	-.02880	-.00230	-.00010	-.00010	.02400	.01040	.67040
1.998		.04116	-.00215	-.01341	.00057	-.00008	-.00010	.00040	.00700	-.03240

GRADIENT

CAGE 822 CT M FS W11 E23 V7 R3

(R00004) (28 SEP 73)

REFERENCE DATA

BOP = .0033 36.71. DRP = 12.6171 INCHES
 LRF = 7.1222 INCHES YRP = .0000 INCHES
 BOP = 14.0902 INCHES DRP = 6.0070 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUOPLR = 54.980
 BFLAP = -14.250 RNUL = 11.100

RUN NO. D/ O RNUL = 11.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CT	CYN	CBL	CAB	CABC	KCP/L
1.998	14.300	.56080	.09240	-.03030	-.00170	-.00020	.00000	.01640	.01080	.67180
1.998	15.270	.60390	.08400	-.03500	-.00040	-.00010	.00000	.02000	.01040	.67140
1.998	16.130	.64170	.08220	-.03400	-.00180	-.00020	.00000	.02220	.01040	.67140
1.998	17.000	.67970	.06760	-.03590	-.00240	-.00030	.00000	.02290	.01040	.67130
1.998	17.850	.71420	.07640	-.03750	-.00120	-.00000	-.00020	.02270	.01040	.67110
1.998	18.680	.74980	.07700	-.03670	-.00190	.00000	-.00010	.02290	.01040	.67090
1.998	19.500	.78610	.07490	-.04070	-.00250	.00000	.00000	.02310	.01030	.67070
1.998	20.400	.82030	.07300	-.04220	-.00260	.00010	.00000	.02330	.01030	.67060
1.998	21.350	.85830	.07130	-.04460	-.00240	.00030	.00000	.02350	.01060	.67090
1.998	22.180	.89310	.06870	-.04680	-.00260	.00040	.00000	.02370	.01070	.67100
1.998	23.000	.92500	.06600	-.04920	-.00290	.00060	.00000	.02390	.01070	.67110
1.998	23.810	.96230	.06330	-.05170	-.00320	.00070	.00000	.02410	.01060	.67120
1.998	24.610	1.02410	.06050	-.05430	-.00320	.00080	.00000	.02430	.01090	.67140
1.998	25.720	1.06720	.05780	-.05620	-.00300	.00090	.00000	.02460	.01100	.67120
1.998	26.640	1.11040	.05480	-.05600	-.00260	.00080	.00010	.02470	.01110	.67110
1.998	27.380	1.15130	.05170	-.05950	-.00240	.00090	.00010	.02490	.01110	.67090
1.998	28.400	1.19910	.04850	-.05790	-.00220	.00060	.00000	.02500	.01110	.66940
1.998	29.340	1.22680	.04690	-.05690	-.00250	.00090	.00000	.02510	.01110	.66940
1.998	30.000	.04455	-.00276	-.00211	-.00010	.00009	.00001	.00000	.00000	-.00000

GRADIENT

RUN NO. D/ O RNUL = 11.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CT	CYN	CBL	CAB	CABC	KCP/L
3.010	13.000	.37790	.08700	-.01370	.00060	-.00010	.00000	.00000	.00340	.66920
3.010	14.720	.41220	.07960	-.01480	.00140	-.00050	.00020	.00000	.00440	.66910
3.010	15.560	.44190	.07650	-.01590	.00140	-.00050	.00030	.00000	.00450	.66910
3.010	16.320	.47600	.07690	-.01670	.00130	-.00040	.00030	.00000	.00460	.66900
3.010	17.420	.50670	.07500	-.01740	.00090	-.00040	.00030	.00000	.00470	.66900
3.010	18.310	.54110	.07350	-.01800	.00070	-.00020	.00030	.00000	.00480	.66900
3.010	19.180	.57390	.07160	-.01990	.00030	-.00010	.00030	.00000	.00480	.66900
3.010	20.060	.60920	.06920	-.02130	.00030	.00000	.00030	.00000	.00490	.66900
3.010	20.990	.64520	.06620	-.02260	.00000	.00000	.00030	.00000	.00490	.66900
3.010	21.890	.68100	.06740	-.02440	.00000	.00010	.00030	.00000	.00500	.66900
3.010	22.790	.71750	.06590	-.02670	.00030	.00020	.00030	.00000	.00520	.66900
3.010	23.670	.75390	.06440	-.02760	.00000	.00040	.00030	.00000	.00540	.66900
3.010	24.540	.79130	.06320	-.02960	.00040	.00040	.00030	.00000	.00560	.66900
3.010	25.420	.82820	.06150	-.03160	.00060	.00060	.00030	.00000	.00580	.66900
3.010	26.310	.86670	.06020	-.03420	.00090	.00070	.00030	.00010	.00610	.66900
3.010	27.200	.90000	.05850	-.03620	.00110	.00090	.00030	.00030	.00620	.66900
3.010	28.100	.94680	.05690	-.03720	.00110	.00090	.00040	.00030	.00630	.66900
3.010	29.000	.97670	.05530	-.03940	.00030	.00090	.00030	.00030	.00670	.66900
3.010	29.890	.03994	-.00184	-.00172	-.00015	.00011	.00001	.00000	.00000	.00000

GRADIENT

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0460)

PAGE 6

0460 B22 C7 M F5 M111 E23 V7 R5

(RDR005) (16 AUG 73)

REFERENCE DATA

BRD7 = .0033 90. FT. XRRP = 12.8171 INCHES
 LRR7 = 7.1222 INCHES YRRP = .0000 INCHES
 BRD7 = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .0000 ELEVON = -20.000
 RUCCOR = .0000 RUCLR = 54.920
 BFLAP = -14.250 RN/L = 7.000

RUN NO. 22/ 1 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	ON	CAF	CLN	CY	CYN	CBL	CAB	CABC	ICP/L
1.206	-2.390	-43180	.17250	.23400	-.00420	-.00160	-.00090	.03590	.01610	.05120
1.206	-1.130	-33590	.16560	.20980	-.00240	-.00200	-.00100	.04020	.01660	.04520
1.206	.000	-23030	.16400	.19440	-.00300	-.00180	-.00130	.04030	.01670	.03770
1.206	1.300	-17560	.16220	.18050	-.00300	-.00140	-.00150	.04070	.01690	1.10290
1.206	2.490	-10400	.16010	.16770	-.00370	-.00120	-.00140	.04100	.01710	1.24520
1.206	3.680	-.03210	.15790	.15490	-.00270	-.00090	-.00110	.04190	.01730	2.42070
1.206	4.860	.04330	.15390	.14070	-.00370	-.00030	-.00090	.04170	.01740	-.54170
1.206	6.030	.11590	.14930	.12910	-.00350	-.00010	-.00060	.04200	.01760	.24070
1.206	7.210	.18790	.14530	.11790	-.00410	.00000	-.00040	.04230	.01770	.42100
1.206	8.390	.26000	.14190	.10680	-.00330	.00010	-.00030	.04260	.01780	.49760
1.206	9.570	.32870	.13670	.10280	-.00410	.00020	-.00020	.04310	.01800	.53640
1.206	10.690	.40970	.13090	.09660	-.00270	-.00030	-.00040	.04350	.01820	.56770
1.206	11.850	.48970	.13130	.08660	-.00040	-.00090	-.00040	.04410	.01850	.56360
1.206	13.000	.53640	.12650	.07840	.00090	-.00010	-.00060	.04470	.01870	.59080
1.206	14.130	.60370	.12140	.06950	.00160	-.00060	-.00060	.04520	.01890	.60940
1.206	15.270	.67120	.11670	.06160	.00140	-.00040	-.00020	.04590	.01910	.61790
1.206	16.410	.73650	.11270	.05700	.00150	-.00030	.00020	.04640	.01960	.62330
1.206	17.560	.79840	.10780	.05410	.00220	-.00030	-.00030	.04740	.01990	.62690
1.206	18.710	.85910	.10260	.05090	.00370	-.00030	-.00060	.04840	.02030	.63000
1.206	19.860	.91890	.09720	.04930	.00410	-.00070	-.00090	.04940	.02060	.63210
1.206	20.960	.96920	.09330	.05160	.00360	-.00030	-.00030	.05000	.02140	.63310
1.206	22.110	1.02210	.08830	.05210	.00350	-.00110	.00020	.05070	.02190	.63290
1.206	23.240	1.06910	.08490	.05660	.00560	-.00120	.00020	.05140	.02110	.63040
1.206	24.360	1.10970	.08230	.06460	.00550	-.00090	-.00030	.05170	.02140	.62460
1.206	25.490	1.14840	.07830	.07260	.00580	-.00120	.00020	.05240	.02180	.62720
1.206	26.590	1.18920	.07400	.07980	.00530	-.00130	.00010	.05240	.02210	.62630
1.206	27.560	1.20500	.06660	.08360	.00500	-.00120	.00110	.05310	.02210	.62630
1.206	GRADIENT	.06426	-.00229	-.01237	.00001	.00020	-.00001	.05061	.00017	-.02251

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0468)

PAGE 7

0468 822 C7 M4 F5 W11 E23 V7 R5

(R00008) (16 AUG 73)

REFERENCE DATA

BREF = .0033 50-FT. XMRP = 12.6171 INCHES
LRDP = 7.1222 INCHES YMRP = .0000 INCHES
BREF = 14.0932 INCHES ZMRP = 6.0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -20.000
RUDDER = .000 RUCPLR = 24.920
BFLAP = -14.250 RN/L = 7.100

RUN NO. 15/ 1 RN/L = 7.10 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CN	CAP	CLM	CY	CYN	CL	CAB	CASC	XCP/L
.011	-2.480	-.57350	.07280	.22340	-.00830	-.00060	.00090	.00090	.00700	.79320
.011	-1.350	-.50070	.07190	.21790	-.00710	-.00060	-.00060	.02030	.00710	.61170
.011	-.280	-.44590	.07320	.21570	-.00550	-.00130	-.00160	.02030	.00700	.63010
.011	.870	-.36960	.07340	.21510	-.00440	-.00070	-.00160	.02010	.00710	.65500
.011	2.030	-.33040	.07240	.21460	-.00360	-.00110	-.00160	.02030	.00720	.69060
.011	3.170	-.27690	.07060	.21360	-.00470	-.00110	-.00160	.02000	.00710	.93620
.011	4.300	-.22360	.06760	.21610	-.00410	-.00090	-.00160	.02000	.00710	1.00710
.011	5.420	-.16580	.06900	.22370	-.00390	-.00150	-.00300	.01990	.00690	1.10630
.011	6.540	-.13660	.06050	.22770	-.00370	-.00130	-.00240	.01970	.00670	1.25650
.011	7.670	-.07200	.05260	.22440	-.00350	-.00070	-.00060	.01960	.00670	1.79740
.011	8.790	-.01960	.04510	.22180	-.00420	-.00030	-.00090	.01970	.00690	5.87690
.011	9.860	.04020	.03770	.22330	-.00360	-.00060	-.00040	.01970	.00690	-1.36640
.011	10.970	.09400	.03060	.22610	-.00340	-.00030	-.00020	.02000	.00690	-.23280
.011	12.090	.15410	.02640	.22600	-.00250	-.00120	.00060	.02030	.00700	.11210
.011	13.190	.21350	.02470	.22490	-.00270	-.00110	.00040	.02170	.00720	.26490
.011	14.280	.26960	.02140	.22830	-.00010	-.00060	-.00010	.02090	.00740	.33570
.011	15.360	.31640	.01960	.22980	-.00090	-.00060	-.00030	.02120	.00750	.36630
.011	16.470	.37960	.01790	.23120	-.00060	-.00030	-.00060	.02150	.00790	.42770
.011	17.570	.42660	.01640	.23190	-.00070	-.00030	-.00110	.02140	.00800	.45160
.011	18.690	.46350	.01460	.23400	.00070	-.00040	-.00090	.02200	.00830	.47370
.011	19.760	.54250	.01320	.23420	.00160	-.00030	-.00110	.02260	.00870	.49290
.011	20.850	.60120	.01060	.23310	.00110	-.00020	-.00120	.02360	.00910	.50920
.011	GRADIENT	.09267	-.00036	-.00097	.00034	-.00004	-.00030	-.00007	.00002	.02966

DATE 02 OCT 73

PAGE 0

TABULATED SOURCE DATA NR-TWT-276 (0460)

0460 B22 C7 M4 F5 W11 E23 V7 R5

(NR0007) (16 AUG 73)

REFERENCE DATA

SREF = .0033 90 FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 RUOCER = .000 RUOTLR = 24.920
 BFLAP = -14.250 RN/L = 5.100

RUN NO. 3/ 2 RN/L = 5.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CAF	CLM	CY	CYN	CR	CAB	CABC	KCF/L
.004	-2.410	-.67100	.12920	.24990	-.00660	-.00090	-.00020	.02640	.00600	.76890
.006	-1.330	-.61890	.12950	.24450	-.00580	-.00070	-.00060	.02620	.00600	.79680
.008	-.190	-.54340	.12920	.24020	-.00580	-.00100	-.00150	.02560	.00600	.81450
.006	.000	-.48600	.12850	.23710	-.00450	-.00070	-.00300	.02340	.00600	.83140
.006	1.960	-.42450	.12750	.23120	-.00500	-.00060	-.00220	.02340	.00600	.85240
.006	3.960	-.36540	.12370	.22720	-.00400	-.00070	-.00220	.02340	.00600	.88070
.006	4.170	-.30550	.12030	.22350	-.00360	-.00070	-.00220	.02350	.00610	.92110
.006	5.270	-.24720	.11620	.22200	-.00470	-.00060	-.00220	.02380	.00610	.98240
.006	6.390	-.20090	.11270	.22040	-.00160	-.00120	-.00240	.02640	.00620	1.07210
.006	7.480	-.14720	.10640	.21220	-.00000	-.00090	-.00220	.02680	.00620	1.22970
.006	8.560	-.09250	.09980	.23290	-.00220	-.00030	-.00050	.02750	.00630	1.57640
.006	9.630	-.04100	.09180	.23150	-.00220	-.00030	-.00050	.02780	.00640	2.73560
.006	10.720	.02570	.08310	.23360	-.00010	-.00070	-.00070	.02790	.00640	-2.65190
.006	11.820	.09200	.07400	.22690	-.00060	-.00070	-.00030	.02780	.00640	-2.5510
.006	12.900	.16000	.07150	.22180	-.00010	-.00060	-.00010	.02780	.00670	.13770
.006	13.960	.22130	.06920	.21990	-.00010	-.00010	-.00020	.02780	.00670	.28300
.006	15.030	.28420	.06670	.21990	-.00010	-.00010	-.00020	.02780	.00670	.36710
.006	16.130	.34500	.06170	.22250	-.00040	-.00030	-.00030	.02710	.00670	.41470
.006	17.210	.39670	.05920	.22360	-.00000	-.00020	-.00030	.02670	.00670	.44410
.006	18.290	.46100	.05450	.22660	.00000	-.00020	-.00030	.02630	.00660	.47190
.006	19.350	.53400	.04720	.21690	.00150	-.00040	-.00180	.02370	.00660	.50240
.006	20.410	.60480	.04060	.21320	-.00010	-.00010	-.00190	.02560	.00660	.52210
.006	21.500	.67650	.03460	.21150	-.00020	-.00010	-.00270	.02590	.00670	.53690
.006	22.580	.75090	.02900	.20840	.00100	.00020	-.00250	.02640	.00670	.54680
.006	23.660	.82340	.02300	.21250	-.00050	.00020	-.00260	.02740	.00680	.55310
.006	24.780	.89560	.01960	.22260	-.00260	.00010	-.00170	.02900	.00680	.55240
.006	25.900	.94530	.01650	.23840	-.00250	-.00020	-.00060	.03140	.00170	.54810
.006	26.920	.99900	.01490	.25950	-.00040	-.00030	-.00030	.03360	.00120	.53810
.006	27.960	.92770	.00970	.26460	.00170	.00020	-.00130	.03620	.00190	.53490
.006	GRADIENT	.03576	-.00131	-.00400	.00062	.00063	-.00031	-.00015	.00001	.01953

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TMT-276 (M68)

PAGE 5

OM68 B22 C7 M4 F5 M11 E23 V7 R5

(R00008) (18 AUG 75)

REFERENCE DATA

BRP = .8053 SQ.FT. XMRP = 12.6171 INCHES
 LMRP = 7.1222 INCHES YMRP = .0000 INCHES
 ZMRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 RUDDER = .000 RUOPLR = 24.920
 BFLAP = -14.750 RN/L = 7.000

RUN NO. 4 / 2 RN/L = 7.00 GRADIENT INTERVAL = -.5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CT	CYN	COL	CAB	CABC	XCP/L
.612	-2.300	-.68220	.12770	.25130	-.00880	-.00040	-.00010	.02890	.00000	.76740
.612	-1.310	-.60290	.12600	.24480	-.00190	-.00070	-.00170	.02840	.00790	.60120
.612	-.130	-.53670	.12620	.24080	-.00490	-.00120	-.00170	.02800	.00600	.61700
.612	1.000	-.48150	.12710	.23580	-.00410	-.00110	-.00230	.02380	.00810	.63210
.612	2.140	-.41390	.12520	.23170	-.00370	-.00110	-.00230	.02380	.00800	.65790
.612	3.290	-.34860	.12180	.22780	-.00210	-.00120	-.00250	.02360	.00820	.69240
.612	4.410	-.29120	.11710	.22360	-.00250	-.00120	-.00250	.02360	.00810	.93430
.612	5.540	-.23680	.11350	.22520	-.00330	-.00100	-.00210	.02640	.00820	1.10180
.612	6.690	-.19290	.11040	.23360	-.00340	-.00100	-.00200	.02690	.00810	1.09740
.612	7.810	-.13690	.10340	.23280	-.00180	-.00080	-.00100	.02710	.00600	1.27730
.612	8.970	-.07860	.09570	.23280	-.00140	-.00070	-.00100	.02720	.00820	1.74120
.612	10.010	-.01390	.08720	.23320	-.00090	-.00090	-.00090	.02700	.00850	5.60070
.612	11.130	.04890	.07870	.23070	-.00100	-.00080	-.00060	.02770	.00850	-1.08230
.612	12.250	.11680	.07020	.22800	-.00110	-.00120	-.00050	.02780	.00880	-.06730
.612	13.350	.17970	.06630	.22520	-.00130	-.00040	-.00030	.02790	.00870	.19070
.612	14.460	.24840	.06100	.22470	-.00060	-.00070	-.00090	.02770	.00870	.31920
.612	15.580	.31420	.05600	.22340	-.00070	-.00040	-.00070	.02770	.00850	.39020
.612	16.690	.37780	.05130	.22200	-.00070	-.00010	-.00100	.02660	.00840	.43360
.612	17.800	.43810	.04650	.22410	-.00110	.00010	-.00040	.02610	.00840	.46360
.612	18.890	.49600	.04420	.22320	-.00140	.00000	-.00070	.02560	.00850	.48620
.612	19.960	.56840	.03950	.22000	-.00030	-.00080	-.00060	.02520	.00870	.50940
.612	21.070	.63350	.03390	.21780	.00160	-.00070	-.00140	.02550	.00890	.52530
.612	22.190	.69810	.02670	.21510	.00220	-.00100	-.00210	.02610	.00910	.53840
.612	23.310	.76760	.01710	.21250	.00100	-.00060	-.00230	.02670	.00940	.55010
.612	24.390	.82550	.01510	.21690	-.00040	.00000	-.00240	.02780	.00990	.55310
.612	25.450	.85980	.01190	.22620	-.00410	.00000	-.00040	.02960	.01090	.55500
.612	26.480	.85400	.01070	.24470	-.00060	-.00100	-.00160	.03180	.01200	.54640
.612	27.490	.83390	.00880	.26500	.00200	-.00050	-.00020	.03500	.01350	.53490
.612	28.500	.83890	.00350	.26130	.00420	.00060	-.00020	.03770	.01480	.53720
.612	GRADIENT	.05605	-.00150	-.00391	.00086	-.00010	-.00034	-.00011	.00003	.02058

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0468)

PAGE 10

0468 822 C7 M4 F5 W111 E23 V7 R5

(RDK008) (18 AUG 73)

REFERENCE DATA

SREF = .8033 SQ.FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 RUCCER = .000 RUCCFLR = 24.980
 BFLAP = -14.230 RN/L = 7.000

RUN NO. 6/1 RN/L = 6.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
.806	-2.700	-67600	.16070	.26500	-.00170	-.00270	-.00030	.03100	.01140	.79370
.806	-1.470	-58920	.15810	.25420	-.00170	-.00230	-.00040	.03060	.01110	.81180
.806	-.360	-51610	.15680	.24520	-.00180	-.00190	-.00090	.03010	.01070	.82670
.806	.780	-44390	.15430	.23580	-.00150	-.00200	-.00140	.02980	.01060	.84750
.806	1.990	-37480	.15110	.23120	-.00000	-.00210	-.00200	.02990	.01040	.87890
.806	3.120	-30310	.14710	.22390	-.00170	-.00210	-.00190	.03010	.01040	.92370
.806	4.260	-24070	.14350	.22090	-.00080	-.00170	-.00270	.03040	.01030	.96970
.806	5.400	-18110	.13990	.22080	-.00120	-.00190	-.00140	.03050	.01030	1.10030
.806	6.560	-12030	.13610	.22400	-.00290	-.00290	-.00260	.03080	.01030	1.33720
.806	7.740	-03010	.13090	.20980	-.00080	-.00110	-.00190	.03120	.01110	3.21430
.806	8.880	.06330	.12510	.19320	-.00020	-.00070	-.00130	.03140	.01120	-.48270
.806	10.020	.14610	.12170	.18660	-.00120	-.00070	-.00110	.03190	.01110	.18210
.806	11.160	.22100	.11890	.17430	-.00040	-.00110	-.00130	.03200	.01110	.36120
.806	12.300	.30360	.11360	.16020	-.00040	-.00140	-.00090	.03200	.01110	.45780
.806	13.440	.39520	.10850	.14420	-.00020	-.00110	-.00130	.03200	.01100	.51750
.806	14.540	.46870	.10010	.13640	-.00040	-.00080	-.00120	.03200	.01090	.54470
.806	15.680	.54320	.09210	.13020	-.00020	-.00180	-.00150	.03200	.01090	.56360
.806	16.800	.61170	.08310	.12340	.00120	-.00270	-.00160	.03220	.01120	.57760
.806	17.900	.66830	.07660	.12400	.00240	-.00250	-.00140	.03220	.01120	.58360
.806	19.010	.77790	.07280	.12660	.00220	-.00230	-.00120	.03230	.01170	.58660
.806	20.110	.82280	.07050	.13640	.00100	-.00220	-.00080	.03330	.01230	.58730
.806	21.190	.86190	.06500	.14550	-.00130	-.00110	.00060	.03420	.01290	.58680
.806	22.290	.89310	.05960	.15760	-.00130	-.00200	.00210	.03530	.01340	.58450
.806	23.380	.90310	.05140	.17010	-.00630	-.00310	-.00140	.03710	.01430	.58110
.806	24.440	.89310	.04870	.19520	.00550	-.00430	-.00060	.03950	.01540	.57140
.806	25.450	.89310	.04660	.21700	-.00250	-.00170	.00050	.04230	.01670	.56210
.806	26.490	.90850	.04240	.22700	.00570	-.00580	-.00030	.04450	.01800	.55990
.806	27.590	.93990	.03240	.22510	.00140	-.00390	.00020	.04660	.01900	.56370
.806		.06229	-.00215	-.00639	.00014	.00010	-.00028	-.00009	-.00015	.02849

GRADIENT

DATE 02 OCT 73

TABULATED SOURCE DATA NR-DVT-276 (XAGS)

PAGE 11

DA68 822 CT H4 F5 M11 E23 V7 R3

(RDR009) (16 AUG 73)

REFERENCE DATA

SREF = .6053 SQ.FT. XRRF = 12.8171 INCHES
 LREF = 7.1222 INCHES YRRF = .0000 INCHES
 BREF = 14.0502 INCHES ZRRF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 RUDDER = .000 RUDDLR = 24.920
 BELAP = -14.250 RN/L = 6.100

RUN NO. 3/1 RN/L = 6.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	YCP/L
.613	-2.750	-.69000	.12630	.25000	-.00970	-.00050	-.00050	.02670	.00810	.78320
.613	-1.820	-.61790	.12710	.24640	-.00070	-.00100	-.00100	.02670	.00820	.79860
.613	-.450	-.55740	.12790	.24280	-.00640	-.00120	-.00140	.02640	.00800	.81200
.613	.680	-.49230	.12660	.23660	-.00280	-.00100	-.00190	.02590	.00800	.82860
.613	1.820	-.45370	.12470	.23100	-.00390	-.00130	-.00210	.02600	.00820	.84790
.613	2.970	-.36500	.12120	.22700	-.00110	-.00100	-.00210	.02610	.00820	.86370
.613	4.090	-.30320	.11680	.22340	-.00150	-.00110	-.00190	.02620	.00820	.87300
.613	5.220	-.24580	.11280	.22230	-.00220	-.00130	-.00210	.02650	.00810	.88470
.613	6.320	-.20930	.11030	.22310	-.00180	-.00110	-.00170	.02670	.00800	.89850
.613	7.440	-.15460	.10480	.23100	-.00120	-.00080	-.00110	.02720	.00800	.9120650
.613	8.520	-.09570	.09720	.23310	-.00050	-.00050	-.00110	.02760	.00810	1.54770
.613	9.630	-.03500	.08920	.23690	-.00150	-.00110	-.00080	.02750	.00820	3.07500
.613	10.750	.02910	.08160	.23150	-.00110	-.00060	-.00040	.02800	.00850	-2.26630
.613	11.870	.09260	.07180	.23150	-.00190	-.00120	-.00050	.02780	.00860	-.26800
.613	12.970	.15560	.06530	.22900	-.00080	-.00110	-.00040	.02780	.00880	.11020
.613	14.050	.22150	.05970	.22650	-.00100	-.00120	-.00110	.02770	.00870	.27640
.613	15.150	.28920	.05460	.22440	-.00050	-.00100	-.00080	.02760	.00870	.36630
.613	16.260	.35260	.05100	.22400	-.00060	-.00040	-.00060	.02670	.00850	.41800
.613	17.370	.41930	.04730	.22290	-.00070	.00020	-.00070	.02600	.00840	.45620
.613	18.450	.48980	.04410	.22460	-.00030	.00030	.00030	.02560	.00830	.47590
.613	19.550	.54150	.03900	.22050	.00010	-.00040	.00030	.02540	.00850	.50200
.613	20.630	.60240	.03430	.21810	.00050	-.00070	-.00010	.02530	.00860	.51860
.613	21.730	.66990	.02870	.21690	.00090	-.00100	-.00090	.02570	.00890	.53270
.613	22.660	.74150	.02130	.21320	.00070	-.00030	-.00130	.02640	.00920	.54600
.613	23.950	.80170	.01520	.21510	-.00020	.00030	-.00190	.02730	.00960	.55310
.613	25.110	.84870	.01070	.21990	-.00190	.00060	-.00200	.02830	.01020	.55650
.613	26.230	.86960	.00730	.23760	-.00240	.00020	-.00110	.03090	.01160	.55130
.613	27.210	.84100	.00660	.25970	.00300	-.00050	-.00090	.03350	.01290	.53820
GRADIENT		.05599	-.00136	-.00407	.00119	-.00008	-.00022	-.00010	.00002	.01818

0468 022 C7 M4 F5 M11 E23 V7 R5

(RDR009) (16 AUG 73)

REFERENCE DATA

SRCP = .0033 50.FT.
 LREF = 7.1222 INCHES
 BRCP = 14.0902 INCHES
 SCALE = .0150 SCALE

YMRP = 12.6171 INCHES
 YMRP = .0000 INCHES
 ZMRP = 6.0000 INCHES

PARAMETRIC DATA

BETA = .0000 ELFVON = -40.000
 RUCCOR = .0000 RUGFLR = 24.920
 BFLAP = -14.250 RNVL = 6.100

RUN NO. 7/ 1 RNVL = 6.10 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CAF	CLM	CT	CYN	CBL	CAB	CABC	XCP/L
.910	-1.320	-1.50740	.16340	.24330	.00000	-.00260	-.00100	.02690	.01030	.82970
.910	.890	-1.44150	.16130	.23750	-.00070	-.00290	-.00160	.03090	.01110	.84980
.910	2.030	-1.37080	.15290	.23020	-.00010	-.00290	-.00160	.03150	.01140	.86040
.910	3.220	-1.29780	.14640	.22420	.00030	-.00300	-.00160	.03160	.01190	.92880
.910	4.380	-1.23280	.14340	.21980	-.00080	-.00270	-.00190	.03120	.01080	.99960
.910	5.540	-1.18400	.14230	.22620	.00010	-.00310	-.00180	.03080	.01030	1.10410
.910	6.740	-1.10080	.13960	.22030	-.00070	-.00170	-.00200	.03060	.01110	1.45730
.910	7.930	-1.00890	.13310	.21800	-.00010	-.00150	-.00200	.03140	.01160	11.73520
.910	9.080	.07720	.12670	.19360	.00120	-.00100	-.00110	.03200	.01180	-.27110
.910	10.260	.16370	.12130	.18180	-.00050	-.00100	-.00140	.03210	.01160	.24830
.910	11.410	.23490	.11960	.17310	.00230	-.00110	-.00140	.03220	.01130	.37750
.910	12.600	.33320	.11440	.15720	-.00050	-.00090	-.00080	.03190	.01120	.53170
.910	13.750	.42530	.10680	.13860	.00170	-.00120	-.00130	.03160	.01110	.55820
.910	14.890	.50770	.10020	.12020	.00290	-.00170	-.00160	.03180	.01100	.57470
.910	16.040	.58080	.09240	.12170	.00390	-.00230	-.00170	.03200	.01100	.58260
.910	17.190	.64880	.08570	.12210	.00460	-.00270	-.00160	.03250	.01140	.58640
.910	18.320	.70450	.08200	.12330	.00630	-.00240	-.00240	.03400	.01230	.58630
.910	19.450	.75540	.08000	.13450	-.00050	-.00010	.00200	.03470	.01310	.58950
.910	20.580	.81670	.07240	.13830	-.00070	.00000	.00290	.03560	.01370	.59130
.910	21.700	.87660	.05960	.14410	-.00150	.00060	-.00060	.03700	.01460	.58950
.910	22.800	.91260	.05260	.15460	-.00260	-.00350	-.00060	.03820	.01570	.58030
.910	23.870	.91500	.05070	.17790	.00060	-.00350	-.00060	.04140	.01700	.56910
.910	24.900	.90960	.05000	.20450	-.00050	-.00300	-.00060	.04190	.01830	.56210
.910	26.170	.92750	.05130	.22640	.00270	-.00240	-.00010	.04190	.01830	.56930
.910	27.240	.97030	.04420	.21750	.00140	-.00250	-.00080	.04220	.01820	.57230
.910	28.310	1.01100	.04020	.21850	.00580	-.00260	-.00040	.04220	.01820	.57230
.910	GRADIENT	.05891	-.00501	-.00346	-.00019	-.00003	-.00015	.00053	.00008	.03557

DATE 02 OCT 73

TABULATED SOURCE DATA NF-TWT-276 (OM68)

PAGE 13

OM68 B22 C7 M4 F5 W11 E23 V7 R5

(RDRD10) (16 AUG 73)

REFERENCE DATA

SHRP = .5033 53. FT. XREF = 12.6171 INCHES
 LREF = 7.1222 INCHES YREF = .0000 INCHES
 BREF = 14.0902 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 RUDDER = .000 RUFLR = 54.920
 BFLAP = -14.250 RN/L = 7.000

RUN NO. 23/ 1 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CSL	CAB	CABC	XCP/L
1.208	-2.530	-1.59370	.23750	.28690	-.00650	-.00130	-.00150	.04010	.01780	.82970
1.208	-1.380	-.48120	.22510	.25910	-.00710	-.00090	-.00300	.04400	.01810	.83000
1.208	-.270	-.40130	.22260	.24480	-.01420	.00230	-.00150	.04410	.01800	.87410
1.208	.930	-.32770	.21930	.23500	-.01080	.00170	-.00130	.04440	.01810	.91570
1.208	2.130	-.25360	.22250	.22550	-.00330	-.00180	-.00210	.04500	.01830	.97900
1.208	3.320	-.17560	.21790	.21280	-.00210	-.00160	-.00210	.04560	.01860	1.09780
1.208	4.500	-.09990	.21230	.19900	-.00290	-.00150	-.00190	.04590	.01880	1.38570
1.208	5.660	-.02440	.20580	.18660	-.00190	-.00170	-.00140	.04630	.01910	1.45930
1.208	6.840	.04770	.20070	.17620	-.00210	-.00190	-.00080	.04670	.01920	1.70500
1.208	8.030	.13200	.19380	.16190	-.00230	-.00160	-.00060	.04720	.01950	1.80350
1.208	9.190	.21840	.18540	.14630	.00070	-.00230	-.00060	.04760	.01970	1.80300
1.208	10.340	.29580	.17910	.13350	-.00130	-.00170	-.00070	.04810	.01990	1.48180
1.208	11.510	.37310	.17310	.12380	-.00000	-.00170	-.00070	.04850	.02010	1.52970
1.208	12.680	.45060	.16570	.11240	-.00150	-.00150	-.00010	.04900	.02030	1.56000
1.208	13.800	.51840	.15930	.10500	.00200	-.00200	-.00020	.04930	.02030	1.57720
1.208	14.930	.58780	.15410	.09860	.00350	-.00190	-.00060	.04930	.02030	1.59010
1.208	16.070	.66200	.14450	.08950	-.00020	.00010	.00050	.04950	.02030	1.60210
1.208	17.220	.73020	.13420	.08270	-.00480	.00260	.00220	.04960	.02030	1.61010
1.208	18.370	.80090	.12730	.07670	.00080	.00020	.00090	.04980	.02030	1.61660
1.208	19.510	.86040	.12380	.07530	.00440	-.00120	.00030	.05030	.02060	1.61960
1.208	20.640	.91170	.12040	.07670	.01300	-.00110	.00020	.05070	.02090	1.62090
1.208	21.740	.96110	.11700	.07840	.00480	-.00090	.00010	.05120	.02120	1.62180
1.208	22.890	1.00830	.11330	.08200	.00440	-.00070	-.00020	.05170	.02140	1.62190
1.208	24.020	1.05890	.10830	.08610	.00600	-.00130	.00060	.05230	.02160	1.62190
1.208	25.130	1.09740	.10450	.09370	.00760	-.00220	.00010	.05270	.02180	1.62040
1.208	26.220	1.12690	.10250	.10700	.00690	-.00210	.00020	.05270	.02190	1.61690
GRADIENT		.06763	-.00270	-.01132	.00097	-.00019	-.00030	.00065	.00013	.06831

0468 B22 CY M4 F3 M11 E23 V7 R3

(MCR011) (16 AUG 75)

REFERENCE DATA

SREF = 8055 30-FT.
 LREF = 7.1222 INCHES
 BREF = 14.0902 INCHES
 SCALE = .0150 SCALE

XMRP = 12.8171 INCHES
 YMRP = .0000 INCHES
 ZMRP = 6.0000 INCHES

PARAMETRIC DATA

DELTA = .0000 ELEVON = -40.0000
 RUDDER = .0000 RUDDER = 34.920
 DFLAP = -14.250 RN/L = 6.0000

RUN NO. 26/ 1 RN/L = 6.00 GRADIENT INTERVAL = -.5.00/ 5.00

WACH	ALPHA	CN	CAF	CLM	CY	CYN	COL	CAB	CARC	XCF/L
1.207	-2.680	-55380	.23550	.26870	-.00630	-.00190	-.00190	.04090	.01780	.63090
1.207	-1.450	-49320	.22730	.26700	-.01060	.00040	-.00230	.04390	.01800	.63110
1.207	-.250	-39020	.72160	.24500	-.01440	.00270	-.00100	.04420	.01810	.67830
1.207	.960	-31460	.21560	.22660	-.01960	.00390	-.00060	.04440	.01830	.91690
1.207	2.160	-25000	.22240	.22450	-.00350	-.00170	-.00200	.04500	.01850	.98230
1.207	3.370	-17400	.21600	.21320	-.00300	-.00140	-.00170	.04560	.01870	1.10290
1.207	4.590	-08220	.21330	.19940	-.00260	-.00140	-.00170	.04600	.01890	1.44720
1.207	5.790	-01310	.20730	.18660	-.00210	-.00170	-.00170	.04630	.01910	5.68050
1.207	7.000	.06400	.20140	.17290	-.00330	-.00160	-.00140	.04680	.01930	-.34220
1.207	8.210	.14630	.19400	.16030	-.00390	-.00140	-.00110	.04730	.01960	.24860
1.207	9.400	.23430	.18500	.14500	-.00290	-.00210	-.00280	.04780	.01980	.42410
1.207	10.580	.71480	.17920	.13250	-.00220	-.00180	-.00100	.04820	.02000	.49690
1.207	11.780	.39640	.17270	.12150	-.00390	-.00120	-.00100	.04880	.02030	.53900
1.207	12.980	.47320	.16540	.11140	-.00190	-.00140	-.00110	.04940	.02050	.56520
1.207	14.120	.54200	.15700	.10320	-.00220	-.00330	-.00110	.04960	.02050	.58160
1.207	15.280	.61360	.15210	.09560	.00110	-.00270	-.00060	.04960	.02040	.59450
1.207	16.470	.69160	.14100	.08600	-.00960	.00270	.00150	.04990	.02050	.60610
1.207	17.660	.76030	.13460	.08070	-.01200	.00380	.00260	.05030	.02050	.61260
1.207	18.830	.83270	.12750	.07410	-.00910	.00210	.00140	.05070	.02070	.61910
1.207	20.000	.89440	.12330	.07360	-.00690	.00110	.00040	.05120	.02080	.62160
1.207	21.110	.94110	.12020	.07550	-.00430	-.00050	.00050	.05160	.02100	.62230
1.207	22.220	.98650	.11650	.07660	-.00300	-.00030	-.00060	.05200	.02130	.62260
1.207	23.360	1.03630	.11230	.08340	-.00160	-.00070	-.00040	.05270	.02160	.62220
1.207	24.500	1.08040	.10860	.09000	-.00350	-.00120	.00020	.05290	.02160	.62190
1.207	25.620	1.11660	.10500	.09590	-.00170	-.00090	.00040	.05320	.02190	.61640
1.207	26.750	1.15190	.10160	.10180	-.00340	-.00130	.00020	.05370	.02200	.61700
1.207	27.840	1.19700	.09630	.11340	-.00690	-.00250	.00060	.05410	.02230	.61700
1.207	GRADIENT	.06760	-.00250	-.01175	.00109	-.00022	.00002	.00056	.00015	.07266

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TWT-276 (CM68)

PAGE 15

CM68 B22 C7 M4 F5 M11: E23 V7 R5

(RDRD12) (18 AUG 75

REFERENCE DATA

SREF = .0033 SQ.FT. XPRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YPRP = .0000 INCHES
 BREF = 14.0502 INCHES ZPRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .0000 ELEVON = -40.0000
 RUCLER = .0000 RUPLR = 54.9200
 RFLAF = -14.2500 RN/L = 9.1000

RUN NO. 27/ 1 RN/L = 9.10 GRADIENT INTERVAL = -5.00/ 9.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	ICP/L
1.206	-8.740	-60080	.23480	.29080	-.00370	-.00120	-.00180	.04190	.01770	.83010
1.206	-1.480	-49480	.22590	.26750	-.00310	-.00090	-.00280	.04350	.01770	.85060
1.206	-.230	-40010	.22130	.24490	-.01370	.00270	-.00100	.04440	.01790	.87710
1.206	.960	-31990	.21560	.22850	-.01550	.00390	-.00060	.04470	.01810	.91810
1.206	2.200	-24780	.22190	.22390	-.00280	-.00180	-.00200	.04320	.01830	.96380
1.206	3.420	-16740	.21790	.21170	-.00370	-.00150	-.00160	.04380	.01850	1.11720
1.206	4.820	-.06640	.21320	.19810	-.00270	-.00150	-.00160	.04610	.01880	1.49490
1.206	5.830	-.00990	.20710	.18900	-.00260	-.00150	-.00160	.04650	.01910	1.746930
1.206	7.030	.06680	.20100	.17210	-.00440	-.00190	-.00140	.04700	.01930	1.89480
1.206	8.270	.15400	.19580	.15600	-.00510	-.00110	-.00110	.04730	.01950	2.27430
1.206	10.850	.23810	.18470	.14360	-.00160	-.00170	-.00090	.04790	.01980	4.29500
1.206	11.840	.40100	.17150	.12790	-.00340	-.00120	-.00110	.04890	.02130	5.41900
1.206	13.030	.47590	.16470	.11190	-.00220	-.00150	-.00110	.04970	.02160	5.65600
1.206	14.200	.54660	.15790	.10300	-.00200	-.00100	-.00110	.04980	.02140	5.82500
1.206	15.360	.61880	.15150	.09690	-.00280	-.00170	-.00070	.04980	.02140	5.94200
1.206	16.550	.68990	.14120	.08690	-.00920	.00260	.00130	.04980	.02140	6.03900
1.206	17.750	.76790	.13400	.08120	-.01100	.00400	.00260	.05030	.02180	6.12900
1.206	18.930	.83920	.12810	.07330	-.00640	.00130	.00070	.05070	.02170	6.19600
1.206	20.080	.89730	.12200	.07310	-.00590	.00070	.00020	.05130	.02190	6.21900
1.206	21.200	.94000	.12140	.07760	-.00430	-.00020	-.00020	.05200	.02180	6.21400
1.206	22.390	.99350	.11540	.06540	-.00360	-.00040	-.00060	.05250	.02150	6.22100
1.206	23.510	1.04570	.11110	.06560	-.00390	-.00040	-.00040	.05260	.02160	6.21700
1.206	24.660	1.08740	.10750	.09230	-.00260	-.00090	.00050	.05300	.02180	6.21600
1.206	25.770	1.12300	.10360	.10160	-.00260	-.00160	.00030	.05330	.02190	6.18600
1.206	26.860	1.15480	.10050	.11250	-.00260	-.00070	.00090	.05370	.02210	6.16100
1.206	27.980	1.20100	.09490	.11370	-.01020	.00150	.00110	.05420	.02240	6.17000
GRADIENT		.06851	-.00234	-.01201	.00789	-.00023	.00015	.00046	.00015	.07650

0468 822 C7 M4 P5 W1:1 E29 V7 R9

REFERENCE 1 AYA

SRO7 = .6033 INCHES YARP = 12.6171 INCHES
 LAR7 = 7.1222 INCHES YARP = .0700 INCHES
 SAR7 = 14.0922 INCHES ZARP = 6.0700 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA	=	.000	ELVON	=	-40.000
RUCER	=	.000	RUCPL	=	54.920
BFLAP	=	-14.290	RNAL	=	11.800

Run No.	%	Run/	Interval =	5.00
1	11.23			

MACH	ALPHA	ON	CAF	CLM	CY	CYN	COL	CAS	CASC	ICP/L
1.998	-0.990	-0.21280	0.09910	0.00010	-0.00250	-0.00100	-0.00060	0.01680	0.00440	0.82500
1.998	0.000	-0.16160	0.16160	0.09170	-0.00250	-0.00120	-0.00070	0.00040	0.00490	0.69740
1.998	0.980	-0.12040	0.19610	0.06350	-0.00290	-0.00150	-0.00080	0.00060	0.00490	0.91250
1.998	1.780	-0.06360	0.17970	0.07750	-0.00280	-0.00110	-0.00060	0.00070	0.00970	1.00000
1.998	2.680	-0.04400	0.15360	0.09350	-0.00270	-0.00100	-0.00050	0.00090	0.00970	1.26610
1.998	3.580	-0.00820	0.14490	0.06640	-0.00270	-0.00090	-0.00050	0.00110	0.00910	4.66340
1.998	4.470	0.03150	0.10750	0.06340	-0.00210	-0.00070	-0.00030	0.02130	0.00660	-0.08770
1.998	5.370	0.06980	0.13540	0.05870	-0.00190	-0.00070	-0.00030	0.02140	0.00930	0.34190
1.998	6.260	0.10680	0.19010	0.05480	-0.00160	-0.00050	-0.00020	0.02160	0.00930	0.48250
1.998	7.140	0.14140	0.2620	0.05200	-0.00140	-0.00040	-0.00020	0.02160	0.00930	0.51640
1.998	8.040	0.17550	0.30910	0.05010	-0.00170	-0.00060	-0.00020	0.02170	0.00930	0.54660
1.998	8.910	0.21040	0.2060	0.04630	-0.00240	-0.00080	-0.00020	0.02180	0.00930	0.56730
1.998	9.780	0.24440	0.11660	0.04750	-0.00260	-0.00070	-0.00020	0.02190	0.00930	0.58160
1.998	10.670	0.27910	0.11620	0.04710	-0.00030	-0.00060	-0.00020	0.02210	0.00940	0.59970
1.998	11.560	0.31620	0.11410	0.04630	-0.00070	-0.00080	-0.00020	0.02250	0.00930	0.59790
1.998	12.440	0.35280	0.11160	0.04430	-0.00090	-0.00080	-0.00020	0.02240	0.00960	0.60960
1.998	13.340	0.39220	0.10650	0.04260	-0.00080	-0.00080	-0.00020	0.02270	0.00960	0.61160
1.998	14.240	0.42610	0.10450	0.04250	-0.00070	-0.00070	-0.00020	0.02290	0.00990	0.61530
1.998	15.090	0.46390	0.10450	0.04250	-0.00100	-0.00030	-0.00020	0.02320	0.01000	0.61620
1.998	15.870	0.49860	0.10340	0.04210	-0.00140	-0.00020	-0.00020	0.02350	0.01020	0.62570
68.001000	0.04501	-0.00315	-0.00677	-0.00000	0.00004	0.00006	0.00006	0.00044	0.00007	0.12558

(NR014) (16 AUG 75)

0468 B22 C7 M4 P5 M11 E23 V7 R5

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
RUCR = .000 RUPLR = 54.920
BFLAP = -14.290 AN/L = 11.000

REFERENCE DATA

SREF = .0033 58.171 INCHES
LREF = 7.1222 INCHES
BREF = 14.0932 INCHES
SCALE = .0120 SCALE

RUN NO. 39/ 1 RN/L = 11.00 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	ON	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.994	14.220	.43690	.11000	.04130	-.00190	-.00060	-.00010	.01810	.01080	.61710
1.996	15.130	.48180	.10390	.04100	-.00140	-.00030	.00000	.02200	.01090	.62030
1.998	15.940	.51945	.10190	.04000	-.00160	-.00060	.00000	.02230	.01060	.62350
1.998	16.840	.55620	.09860	.03640	-.00230	-.00030	.00000	.02260	.01070	.62640
1.998	17.690	.59320	.09360	.03680	-.00170	-.00060	.00000	.02290	.01070	.62900
1.998	18.540	.62980	.08430	.03600	-.00270	-.00040	.00010	.02310	.01040	.63180
1.998	19.480	.67100	.09210	.03470	-.00160	-.00030	.00010	.02340	.01060	.63280
1.998	20.420	.71250	.08920	.03340	-.00140	-.00030	.00000	.02360	.01040	.63460
1.998	21.360	.75390	.08570	.03130	-.00060	-.00030	.00000	.02390	.01090	.63650
1.998	22.290	.79600	.08170	.03020	-.00140	-.00030	.00000	.02410	.01090	.63790
1.998	23.220	.83710	.07600	.02860	-.00110	.00000	.00000	.02430	.01090	.63920
1.998	24.130	.87690	.07480	.02790	-.00200	.00020	.00000	.02450	.01090	.64010
1.998	25.070	.91710	.07220	.02620	-.00150	.00030	.00010	.02470	.01100	.64090
1.998	26.000	.95620	.06950	.02900	-.00190	.00040	.00010	.02490	.01100	.64170
1.998	26.920	.99530	.06660	.02930	-.00140	.00030	.00020	.02510	.01120	.64100
1.998	27.850	1.03600	.06420	.02990	-.00110	.00060	.00010	.02540	.01130	.64120
1.998	28.770	1.07400	.06200	.03090	-.00110	.00060	.00000	.02560	.01140	.64130
1.998	29.610	1.10790	.06010	.03110	-.00160	.00010	.00000	.02580	.01150	.64150
1.998	GRADIENT	.04355	-.00320	-.00062	.00013	.00010	.00001	.00033	.00006	.00151

RUN NO. 42/ 1 RN/L = 11.00 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	ON	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
3.010	13.760	.30740	.10100	.03090	.00170	-.00120	-.00000	.02240	.01310	.61400
3.010	14.610	.33320	.09360	.03060	.00180	-.00110	.00000	.02540	.01420	.61770
3.010	15.540	.36650	.08760	.02960	.00090	-.00060	.00010	.02580	.01430	.62270
3.010	16.500	.40170	.08000	.02970	.00150	-.00090	.00010	.02620	.01440	.62460
3.010	17.360	.43200	.06360	.02960	.00100	-.00090	.00010	.02650	.01450	.62660
3.010	18.260	.46470	.06370	.02930	.00160	-.00090	.00000	.02690	.01460	.62860
3.010	19.190	.49890	.06190	.02970	.00210	-.00090	.00000	.02720	.01470	.62990
3.010	20.030	.52660	.06160	.02930	.00180	-.00090	.00000	.02750	.01470	.63110
3.010	20.920	.56300	.07900	.02950	.00150	-.00070	.00000	.02770	.01470	.63250
3.010	21.820	.59770	.07710	.02940	.00160	-.00060	.00000	.02800	.01480	.63370
3.010	22.750	.63090	.07520	.02950	.00140	-.00040	.00010	.02820	.01480	.63460
3.010	23.370	.66420	.07360	.02960	.00060	-.00020	.00010	.02850	.01490	.63540
3.010	24.450	.69630	.07220	.02970	.00060	-.00020	.00010	.02870	.01490	.63620
3.010	25.320	.73260	.07060	.02960	.00060	-.00020	.00010	.02890	.01500	.63690
3.010	26.200	.76960	.06910	.02970	.00050	.00000	.00020	.02910	.01500	.63760
3.010	27.060	.80560	.06730	.02920	.00030	.00020	.00010	.02930	.01510	.63850
3.010	27.960	.84310	.06590	.02860	.00000	.00040	.00010	.02940	.01510	.63940
3.010	28.760	.87160	.06410	.02840	.00020	.00050	.00020	.02960	.01510	.63980
3.010	GRADIENT	.03901	-.00215	-.00009	-.00009	.00011	.00001	.00039	.00009	.00153

DATE 22 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (CM68)

PAGE 10

CM68 B22 CT M4 FS M11 E23 V7 RS

(RDR015) (16 AUG 73)

REFERENCE DATA

SREF = .0033 SQ.FT.
 LREF = 7.1222 INCHES
 BREF = 14.0502 INCHES
 SCALE = .0150 SCALE

XMRP = 12.6171 INCHES
 YMRP = .0000 INCHES
 ZMRP = 6.0000 INCHES

BETA = .000
 RUDDER = .000
 BFLAP = 13.750
 ELEVON = 15.000
 RUFLR = 54.920
 RN/L = 7.100

PARAMETRIC DATA

RUN NO. 31/ 1 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CN	CAF	CLN	CY	CYN	CBL	CAB	CABC	XCP/L
1.209	-1.940	.01690	.15110	-.06420	-.00460	-.00010	-.00720	.03580	.01750	2.05970
1.209	-.750	.01680	.14450	-.06500	-.00380	.00000	-.00040	.04270	.01790	.95970
1.209	.460	.01670	.14470	-.10280	-.00430	-.00010	.00040	.04370	.01800	.65630
1.209	1.650	.01610	.14470	-.12010	-.00420	-.00010	-.00740	.04340	.01820	.82120
1.209	2.840	.03350	.14470	-.13680	-.00460	-.00030	-.00730	.04400	.01850	.60330
1.209	4.030	.41580	.14480	-.15600	-.00480	-.00030	.00000	.04450	.01880	.78990
1.209	5.210	.49340	.14480	-.17350	-.00570	-.00040	.00040	.04490	.01900	.78080
1.209	6.380	.57280	.14590	-.18970	-.00590	.00010	-.0. 110	.04550	.01920	.77370
1.209	7.560	.64830	.14610	-.20470	-.00660	.00030	.00030	.04610	.01950	.76790
1.209	8.730	.72330	.14620	-.21440	-.00750	.00030	.00030	.04670	.01970	.76100
1.209	9.900	.79670	.14660	-.22280	-.00800	.00030	.00030	.04720	.01980	.75480
1.209	11.040	.86490	.14690	-.22780	-.00700	.00040	-.00050	.04770	.01990	.74860
1.209	12.190	.92820	.14700	-.23080	-.00620	.00040	.00060	.04820	.02000	.74310
1.209	13.340	.99010	.14700	-.23300	-.00620	.00040	.00060	.04880	.02030	.73730
1.209	14.470	1.05310	.14700	-.23500	-.00710	.00010	.00090	.04930	.02060	.73350
1.209	15.610	1.11370	.14700	-.23600	-.00670	.00040	.00090	.04970	.02070	.73050
1.209	16.760	1.17520	.14700	-.24010	-.00650	.00070	.00060	.05050	.02090	.72700
1.209	17.900	1.23230	.14680	-.24180	-.00680	.00060	.00070	.05150	.02120	.72390
1.209	19.050	1.28460	.14680	-.24100	-.00690	.00100	.00080	.05270	.02160	.72070
1.209	20.170	1.33710	.14660	-.23800	-.00760	.00160	.00090	.05390	.02220	.71640
1.209	21.290	1.39080	.14600	-.23030	-.00750	.00150	.00080	.05490	.02270	.71320
1.209	22.400	1.42330	.12940	-.22420	-.00780	.00100	.00090	.05560	.02320	.70980
1.209	23.540	1.46880	.12630	-.21660	-.00830	.00070	.00070	.05620	.02340	.70610
1.209	24.670	1.50600	.12430	-.21110	-.00820	.00050	.00050	.05660	.02370	.70340
1.209	25.770	1.54970	.12050	-.20330	-.00710	-.00010	.00040	.05790	.02390	.70060
1.209	26.890	1.59490	.11540	-.19670	-.00680	.00060	.00030	.05850	.02410	.69770
1.209	27.910	1.61340	.11270	-.19660	-.00620	.00070	.00010	.05850	.02440	.69670
1.209	GRADIENT	.06834	-.00074	-.01381	-.00010	-.00005	.00003	.00114	.00020	-.16398

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0467)

PAGE 19

0468 B22 C7 M4 F5 W11 E23 V7 R5

(RDR016) (16 AUG 73)

REFERENCE DATA

SREF = .0033 96. FT. XPRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YPRP = .0000 INCHES
 BREF = 14.0502 INCHES ZPRP = 6.0000 INCHES
 SCALE = .0130 SCALE

BETA = .000 ELEVON = 15.000
 RUDDER = .000 RUOPLR = 54.920
 BFLAP = 13.750 RW/L = 6.100

PARAMETRIC DATA

RUN NO. 32/ 1 RW/L = 0.10 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CN	CAP	CLM	CV	CYN	CEL	CAB	CASC	KCP/L
1.209	-1.970	.01360	.15150	-.08890	-.00460	.00000	-.00030	.03510	.01750	2.31140
1.209	-.720	.10530	.14440	-.06530	-.00460	-.00010	-.00040	.04270	.01760	.95000
1.209	.410	.17910	.14430	-.10160	-.02400	-.00010	-.00040	.04300	.01800	.86100
1.209	1.600	.25670	.14430	-.12000	-.00430	-.00010	-.00040	.04350	.01820	.82360
1.209	2.600	.33500	.14440	-.13770	-.00490	-.00020	-.00020	.04400	.01850	.80310
1.209	4.000	.41360	.14450	-.15550	-.00530	-.00030	-.00010	.04450	.01870	.79020
1.209	5.190	.48210	.14430	-.17260	-.00620	-.00020	.00010	.04510	.01900	.76110
1.209	6.390	.57300	.14350	-.18900	-.00660	.00000	.00010	.04560	.01930	.77330
1.209	7.560	.68060	.14200	-.20500	-.00670	.00040	.00010	.04600	.01960	.76770
1.209	8.780	.72960	.14010	-.21710	-.00630	.00040	.00030	.04690	.01960	.76140
1.209	9.930	.80230	.13790	-.22560	-.00770	.00060	.00060	.04740	.01990	.75530
1.209	11.100	.87040	.13510	-.22890	-.00660	.00100	-.00030	.04790	.01990	.74870
1.209	12.270	.93530	.13360	-.23060	-.01060	.00190	.00190	.04830	.02010	.74270
1.209	13.430	.98230	.13270	-.23060	-.00960	.00120	.00100	.04890	.02040	.73750
1.209	14.580	1.05650	.13310	-.23370	-.00840	.00060	.00060	.04940	.02060	.73330
1.209	15.720	1.12240	.13320	-.23610	-.00780	.00060	.00090	.05000	.02060	.72990
1.209	16.870	1.17960	.13360	-.23930	-.00600	.00090	.00070	.05060	.02190	.72650
1.209	18.020	1.23700	.13340	-.24110	-.00640	.00100	.00060	.05190	.02120	.72360
1.209	19.180	1.29190	.13280	-.24030	-.00670	.00120	.00070	.05310	.02170	.72030
1.209	20.360	1.33960	.13140	-.23490	-.01030	.00160	.00060	.05440	.02230	.71640
1.209	21.450	1.36610	.13030	-.22900	-.01060	.00170	.00070	.05540	.02290	.71260
1.209	22.560	1.43110	.12790	-.22200	-.00950	.00130	.00070	.05610	.02330	.70890
1.209	23.700	1.47310	.12510	-.21500	-.00820	.00110	.00060	.05670	.02360	.70560
1.209	24.850	1.51370	.12240	-.20820	-.00620	.00060	.00040	.05710	.02390	.70270
1.209	25.970	1.55410	.11840	-.20230	-.00710	-.00010	.00010	.05770	.02400	.69960
1.209	27.070	1.59790	.11350	-.19730	-.00830	.00090	.00060	.05830	.02420	.69730
1.209	28.170	1.63660	.11040	-.19310	-.00940	.00040	.00120	.05890	.02440	.69530
1.209	29.170	.06650	-.00064	-.01535	-.00010	-.00004	.00004	.00124	.00022	-.19523

GRADIENT

TABULATED SOURCE DATA NR-TUT-278 (0468)

DATE 02 OCT 73

(R00017) (14 AUG 73)

ON 06 022 C7 M4 F5 W111 E23 V7 R5

PARAMETRIC DATA

REFERENCE DATA

9007 = .0033 90.FT. 1000P = 12.6171 INCHES
 1007 = 7.1222 INCHES 1000P = .0000 INCHES
 8007 = 14.0502 INCHES 2000P = 6.0000 INCHES
 SCALE = .0150 SCALE

RUN NO. 35/ 2 RN/L = 11.10 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	ON	CAF	CLM	CY	CYN	CEL	CAB	CABC	XCP/L
1.998	-.700	.02200	.13320	-.05070	-.00120	-.00060	.00030	.01660	.00940	1.50120
1.998	.160	.06320	.12850	-.05630	-.00120	-.00040	.00050	.02170	.00970	.96960
1.996	1.010	.09900	.12740	-.06100	-.00130	-.00060	.00040	.02190	.00970	.87850
1.993	1.990	.13740	.12670	-.06660	-.00070	-.00060	.00040	.02200	.00970	.83070
1.998	2.830	.17580	.12560	-.07190	-.00070	-.00060	.00040	.02220	.00970	.81420
1.998	3.750	.20960	.12420	-.07710	-.00090	-.00060	.00040	.02220	.00960	.78750
1.998	4.600	.24540	.12290	-.08210	-.00130	-.00060	.00040	.02220	.00950	.77500
1.998	5.480	.28130	.12250	-.08730	-.00150	-.00060	.00040	.02220	.00950	.76600
1.998	6.370	.31640	.12250	-.09230	-.00160	-.00070	.00050	.02220	.00940	.75940
1.998	7.250	.35080	.12260	-.09680	-.00150	-.00060	.00050	.02230	.00950	.75350
1.998	8.130	.38510	.12240	-.10030	-.00160	-.00060	.00060	.02240	.00950	.74770
1.998	9.000	.42080	.12180	-.10410	-.00220	-.00050	.00060	.02260	.00960	.73830
1.998	9.860	.45730	.12060	-.10750	-.00310	-.00050	.00060	.02270	.00960	.73450
1.998	10.700	.49490	.11970	-.11110	-.00310	-.00040	.00060	.02270	.00970	.73090
1.998	11.650	.53390	.11890	-.11470	-.00380	-.00040	.00060	.02280	.00970	.72790
1.998	12.550	.57260	.11750	-.11850	-.00400	-.00030	.00070	.02290	.00970	.72560
1.998	13.480	.61260	.11720	-.12310	-.00360	-.00030	.00060	.02310	.00960	.72350
1.998	14.360	.65070	.11720	-.12650	-.00390	-.00020	.00060	.02310	.00990	.72100
1.998	15.170	.68960	.11650	-.12960	-.00350	-.00020	.00100	.02340	.00990	.71940
1.998	16.000	.72590	.11590	-.13320	-.00390	-.00010	.00100	.02340	.00990	.71940
1.998	GRADIENT	.04165	-.00166	-.00991	.00004	-.00012	.00004	.00049	.00000	-.10501

0A68 222 C7 M4 F5 W111 E23 V7 R5

(RDR010) (16 AUG 73)

REFERENCE DATA

SREF = .6033 36.0 FT.
 LREF = 7.1222 INCHES
 BREF = 14.0902 INCHES
 SCALE = .0190 SCALE

XREF = 12.6171 INCHES
 YREF = .0000 INCHES
 ZREF = 6.0000 INCHES

BETA = .000 ELEVON = 15.000
 RUDDER = .000 RUDDLR = 54.920
 BFLAP = 13.750 RN/L = 11.100

PARAMETRIC DATA

RUN NO. 38/ 1 RN/L = 11.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.998	15.010	.69950	.12200	-.13430	-.00350	.00000	.00070	.01910	.00900	.72230
1.998	15.970	.75790	.11790	-.13940	-.00350	.00000	.00070	.02220	.01010	.72020
1.998	16.890	.79430	.11780	-.14440	-.00350	.00000	.00060	.02240	.01010	.71880
1.998	17.750	.83390	.11750	-.14820	-.00320	.00010	.00040	.02260	.01020	.71750
1.998	18.720	.87750	.11700	-.15310	-.00320	.00000	.00050	.02290	.01020	.71610
1.998	19.680	.91930	.11600	-.15790	-.00330	.00000	.00070	.02310	.01030	.71510
1.998	20.500	.96180	.11550	-.16280	-.00330	.00020	.00060	.02330	.01040	.71420
1.998	21.390	1.00480	.11510	-.16750	-.00330	.00040	.00060	.02360	.01040	.71320
1.998	22.300	1.04850	.11480	-.17290	-.00400	.00060	.00060	.02380	.01050	.71250
1.998	23.200	1.09270	.11380	-.17850	-.00450	.00070	.00070	.02410	.01060	.71200
1.998	24.090	1.13690	.11310	-.18430	-.00450	.00070	.00070	.02430	.01070	.71150
1.998	24.980	1.18290	.11170	-.19040	-.00360	.00080	.00070	.02460	.01090	.71110
1.998	25.880	1.23020	.11010	-.19720	-.00320	.00070	.00060	.02490	.01110	.71090
1.998	26.780	1.27480	.10810	-.20310	-.00340	.00050	.00060	.02520	.01110	.71050
1.998	27.650	1.32100	.10650	-.20960	-.00300	.00070	.00060	.02540	.01110	.71000
1.998	28.530	1.36550	.10450	-.21380	-.00310	.00070	.00100	.02560	.01120	.70950
1.998	29.410	1.40870	.10270	-.21750	-.00240	.00070	.00100	.02580	.01120	.70900
1.998	30.290	1.45160	.10130	-.22170	-.00190	.00050	.00090	.02590	.01120	.70810
GRADIENT		.04915	-.00117	-.00592	.00005	.00006	.00003	.00033	.00009	-.00383

RUN NO. 43/ 1 RN/L = 11.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
3.010	13.650	.45280	.10930	-.08480	.00040	-.00060	.00070	.00160	.00320	.72080
3.010	14.790	.49280	.10370	-.08940	-.00060	-.00060	.00070	.00620	.00440	.71680
3.010	15.580	.52600	.10360	-.09310	-.00120	-.00060	.00060	.00660	.00450	.71750
3.010	16.320	.56250	.10360	-.09700	-.00170	-.00050	.00060	.00690	.00460	.71530
3.010	17.420	.59870	.10330	-.10150	-.00100	-.00040	.00080	.00720	.00470	.71420
3.010	18.310	.63420	.10300	-.10560	-.00040	-.00010	.00080	.00760	.00470	.71320
3.010	19.180	.67200	.10270	-.11050	-.00100	-.00010	.00090	.00780	.00480	.71240
3.010	20.060	.71080	.10250	-.11530	-.00110	-.00010	.00090	.00810	.00490	.71150
3.010	20.990	.75000	.10250	-.12010	-.00110	.00010	.00090	.00840	.00490	.71080
3.010	21.870	.78910	.10260	-.12490	-.00140	.00010	.00100	.00860	.00500	.71010
3.010	22.750	.82880	.10260	-.12980	-.00210	.00020	.00100	.00880	.00500	.70960
3.010	23.630	.86870	.10270	-.13480	-.00180	.00010	.00100	.00900	.00500	.70920
3.010	24.510	.90990	.10280	-.14080	-.00210	.00050	.00120	.00920	.00510	.70880
3.010	25.390	.95140	.10280	-.14640	-.00200	.00060	.00100	.00940	.00510	.70850
3.010	26.280	.99510	.10280	-.15250	-.00220	.00060	.00100	.00950	.00510	.70830
3.010	27.170	1.03690	.10270	-.15810	-.00230	.00110	.00110	.00970	.00520	.70800
3.010	28.040	1.07820	.10260	-.16370	-.00230	.00110	.00110	.00980	.00520	.70770
3.010	28.940	1.11250	.10290	-.16850	-.00210	.00110	.00120	.01000	.00520	.70760
GRADIENT		.04412	-.00018	-.00561	-.00014	.00012	.00003	.00036	.00008	-.00080

(RDR019) (16 AUG 73)

0466 822 C7 W4 F5 W11 E23 V7 R5

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 RUDDER = .000 RUCFLR = 24.920
 BFLAP = 19.750 RM/L = 5.000

REFERENCE DATA

WREF = .6053 58-FT. XWRP = 12.6171 INCHES
 LWRP = 7.1222 INCHES YWRP = .0000 INCHES
 BWRP = 14.0302 INCHES ZWRP = 6.0070 INCHES
 SCALE = .0150 SCALE

RUN NO. 11/ 1 RM/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
.009	-1.850	.18990	.05180	-1.4830	-.00290	-.00120	.00000	.02370	.01030	.93660
.009	-1.850	.25560	.05220	-1.5050	-.00100	-.00070	.00010	.02630	.01060	.86650
.009	.390	.31030	.05210	-1.5170	-.00190	-.00030	.00020	.02800	.01040	.83170
.009	1.460	.36750	.05130	-1.5160	-.00190	-.00090	.00020	.02800	.01050	.80370
.009	2.620	.42030	.04750	-1.5120	-.00070	-.00130	.00020	.02570	.01040	.78430
.009	3.750	.47470	.04360	-1.5160	-.00220	-.00130	.00020	.02570	.01040	.76670
.009	4.840	.53180	.03960	-1.5200	-.00200	-.00100	.00000	.02550	.01050	.75700
.009	5.960	.58860	.03410	-1.5340	-.00210	-.00120	.00000	.02590	.01040	.74860
.009	7.080	.63180	.02800	-1.5520	-.00110	-.00110	.00020	.02990	.01040	.73960
.009	8.180	.71240	.0218	-1.5770	-.00110	-.00100	-.00040	.02610	.01040	.73330
.009	9.240	.80960	.01570	-1.5780	-.00160	-.00150	-.00040	.02610	.01040	.72710
.009	10.320	.83980	.01160	-1.6060	-.00120	-.00150	-.00040	.02610	.01040	.72000
.009	11.420	.90830	.00990	-1.6710	-.00110	-.00140	-.00100	.02640	.01090	.71500
.009	12.480	.97770	.01270	-1.6130	-.00220	-.00130	-.00090	.02730	.01090	.71240
.009	13.950	.97770	.01630	-1.6760	.00110	-.00130	-.00090	.02890	.01120	.71030
.009	14.580	1.01940	.01660	-1.6190	.00150	-.00150	.00030	.03010	.01160	.70640
.009	15.680	1.09000	.01600	-1.6010	.00160	-.00150	.00030	.03220	.01240	.70330
.009	16.780	1.13690	.01360	-1.6530	.00270	-.00140	.00060	.03390	.01310	.70420
.009	17.840	1.20560	.01350	-1.7140	.00270	-.00110	.00060	.03440	.01390	.70270
.009	18.910	1.26280	.01390	-1.7440	.00300	-.00090	.00060	.03590	.01420	.70040
.009	19.970	1.37970	.01380	-1.7290	.00360	-.00060	.00050	.03790	.01500	.69690
.009	21.010	1.34710	.01080	-1.6480	.00680	-.00060	.00050	.03850	.01520	.69320
.009	22.070	1.37770	.00750	-1.5490	.00960	-.00020	-.00030	.04070	.01610	.68890
.009	23.170	1.43490	.00140	-1.4430	.01320	.00120	-.00030	.04340	.01750	.68280
.009	24.240	1.47530	-.00950	-1.2400	.00750	-.00120	.00010	.04380	.01850	.67420
.009	25.300	1.43000	-.01680	-.08700	.00690	-.00120	.00010	.04380	.02090	.66490
.009	26.390	1.35690	-.01480	-.04820	.00290	-.00160	-.00040	.04380	.02090	.66490
.009	GRADIENT	.05019	-.00184	-.00026	.00020	-.00013	.00001	-.00004	-.00000	-.02519

CM60 B22 C7 M4 F5 M11 E23 V7 R5

(NR020) (16 AUG 75)

REFERENCE DATA

SREF = .0093 SQ.FT. YMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0902 INCHES YMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 RUDDER = .000 RUDDLR = 24.920
 BFLAP = 13.750 RNVL = 7.100

RUN NO. 13/ 1 RNVL = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CAF	CLM	CT	CYN	CBL	CAB	CABC	XCP/L
.612	-1.940	.18580	.09040	-.14690	-.00070	-.00090	-.00010	.02630	.01040	.94700
.612	-.000	.23820	.05170	-.14900	-.00170	-.00050	.00000	.02570	.01020	.86930
.612	.260	.30430	.05200	-.15090	-.00350	-.00070	.00000	.02590	.01040	.83450
.612	1.410	.36380	.05000	-.15130	-.00190	-.00050	.00000	.02580	.01040	.80490
.612	2.570	.42220	.04780	-.15150	-.00270	-.00090	.00000	.02590	.01050	.76390
.612	3.700	.48050	.04410	-.15410	-.00110	-.00070	.00000	.02580	.01030	.77000
.612	4.830	.54030	.03910	-.15400	-.00220	-.00070	.00000	.02590	.01040	.75670
.612	5.960	.59630	.03250	-.15550	-.00190	-.00090	-.00020	.02580	.01040	.74750
.612	7.090	.65380	.02690	-.15700	-.00180	-.00060	.00000	.02560	.01030	.73990
.612	8.230	.72210	.02020	-.15780	-.00180	-.00040	.00010	.02550	.01030	.73230
.612	9.330	.77920	.01450	-.15790	-.00180	-.00060	-.00040	.02570	.01040	.72640
.612	10.430	.84690	.00780	-.16180	-.00110	-.00110	-.00040	.02650	.01060	.72220
.612	11.550	.90280	.00780	-.16300	-.00110	-.00130	-.00050	.02640	.01040	.71830
.612	12.650	.94590	.00860	-.16000	.00290	-.00190	-.00150	.02700	.01060	.71410
.612	13.740	1.07040	.00910	-.15980	.00180	-.00280	-.00050	.02820	.01090	.71060
.612	14.810	1.05040	.00840	-.16000	.00270	-.00090	-.00100	.02940	.01140	.70790
.612	15.890	1.09360	.00710	-.15970	.00380	-.00080	-.00080	.03050	.01170	.70550
.612	17.010	1.14570	.00570	-.15700	.00250	-.00060	.00030	.03190	.01240	.70230
.612	18.130	1.27560	.00560	-.16760	.00270	-.00080	.00130	.03430	.01320	.70220
.612	19.220	1.29450	.00640	-.17330	.00240	-.00020	.00090	.03550	.01400	.70110
.612	20.290	1.34900	.00490	-.16900	.00360	.00020	-.00090	.03700	.01480	.69790
.612	21.360	1.37200	.00110	-.16320	.00570	.00050	-.00230	.03860	.01540	.69540
.612	22.420	1.40540	-.00120	-.15200	.00830	.00150	-.00480	.03990	.01570	.69170
.612	23.520	1.43050	-.00560	-.13760	.01030	.00210	-.00600	.04210	.01640	.68730
.612	24.560	1.44710	-.01360	-.11740	.00730	.00160	-.00730	.04450	.01750	.68170
.612	25.590	1.42490	-.02090	-.07960	-.00250	.00100	.00450	.04740	.01900	.67240
.612	26.630	1.33510	-.01830	-.03650	.03200	-.00170	-.00310	.05310	.02160	.66250
.612	27.620	1.32910	-.02170	-.02910	.03520	-.00100	-.01060	.05750	.02310	.65990
	GRADIENT	.05183	-.00169	-.00282	-.00008	-.00020	-.00000	-.00003	.00001	-.02588

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0468)

0468 B22 C7 M4 F5 W11 E23 V7 R3

(RDR020) (16 AUG 73)

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 RUDDER = .000 RUOFLR = 24.220
 RFLAR = 13.750 RN/L = 7.100

REFERENCE DATA

SRCP = .0033 98.47.
 LREF = 7.1222 INCHES
 BREF = 14.0902 INCHES
 SCALE = .0150 SCALE

RUN NO. 9/1 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

NRCH	ALPHA	ON	CAF	CLM	CT	CYN	CEL	CAB	CABC	XCF/L
.901	-2.070	.10160	.06520	-.13410	-.00470	.00010	.00060	.02690	.01120	1.13730
.901	-.620	.19110	.06530	-.14290	-.00590	.00000	.00020	.02860	.01180	.92700
.901	.270	.26360	.06710	-.15080	-.00320	-.00040	.00000	.02800	.01150	.86070
.901	1.450	.34300	.06920	-.16230	-.00370	-.00050	.00000	.02790	.01150	.82590
.901	2.630	.42420	.06970	-.17440	-.00120	-.00070	-.00010	.02810	.01160	.80310
.901	3.810	.51000	.07110	-.18640	-.00140	-.00090	-.00010	.02800	.01160	.78780
.901	4.980	.59340	.07350	-.19740	-.00270	-.00050	.00010	.02790	.01150	.77640
.901	6.140	.68030	.07180	-.20690	-.00340	-.00050	.00010	.02750	.01130	.76860
.901	7.290	.71140	.07350	-.21250	-.00790	.00040	.00120	.02740	.01140	.76180
.901	8.440	.75900	.07470	-.21540	-.00290	-.00070	.00000	.02890	.01180	.75390
.901	9.590	.79680	.07270	-.21630	-.00180	-.00050	-.00010	.02940	.01230	.74700
.901	10.720	.84550	.07370	-.20790	-.00260	-.00030	.00070	.03010	.01290	.74240
.901	11.790	.89980	.07390	-.20690	-.00250	-.00010	.00050	.03080	.01340	.73660
.901	12.890	.94920	.07580	-.21870	-.00160	-.00030	.00000	.03180	.01400	.73280
.901	13.980	1.01230	.07730	-.22280	-.00790	.00000	-.00010	.03450	.01460	.72910
.901	15.080	1.06830	.07740	-.22390	.00190	-.00040	.00020	.03570	.01510	.72450
.901	16.180	1.11970	.07620	-.22100	.00770	-.00090	.00020	.03700	.01600	.71960
.901	17.310	1.17570	.07410	-.21600	.00090	-.00060	.00030	.03820	.01600	.71570
.901	18.410	1.21710	.07220	-.21130	.00220	-.00100	.00020	.03950	.01650	.70980
.901	19.560	1.25750	.07390	-.19800	.00460	-.00130	-.00040	.04180	.01750	.70390
.901	20.610	1.29440	.06820	-.18300	.00550	-.00090	.00000	.04490	.01890	.69900
.901	21.660	1.33060	.06620	-.17040	.00520	-.00150	.00110	.04930	.02070	.69050
.901	22.770	1.34660	.06540	-.14140	.01170	-.00180	-.00290	.05340	.02240	.68490
.901	23.840	1.34860	.05710	-.12130	.02630	-.00850	-.00320	.05710	.02420	.67510
.901	24.870	1.32220	.05360	-.08370	.01570	-.00800	-.00310	.06050	.02540	.67110
.901	26.010	1.33630	.04660	-.07020	.00550	-.00310	.00040	.06250	.02580	.66740
.901	27.100	1.38500	.03920	-.05860	.00820	-.00200	.00020	.06300	.02370	.66770
.901	28.170	1.42330	.03670	-.06110	.00680	-.00080	.00020	.06006	.02002	-.04343
.901	GRADIENT	.06884	.00792	-.00936	.00152	-.00012	-.00009			

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (0466)

PAGE 25

0466 B22 C7 M4 F5 W111 E23 V7 R5

(RDR021) (16 AUG 73)

REFERENCE DATA

SRP = .0033 SQ.FT. XRRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YRRP = .0000 INCHES
 BREF = 14.0902 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0130 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 RUOSER = .000 RUCLFLR = 24.920
 BFLAF = 13.750 RN/L = 8.000

RUN NO. 14/ 1 RN/L = 8.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
.613	-1.920	.18950	.05040	-1.14790	-.00330	-.00080	.00000	.02600	.01030	.93910
.613	-.750	.25740	.05160	-1.14890	-.00170	-.00030	.00000	.02610	.01040	.86480
.613	.310	.30670	.05160	-1.15010	-.00300	-.00040	.00010	.02580	.01040	.83200
.613	1.490	.36680	.05030	-1.15130	-.00220	-.00040	-.00010	.02570	.01040	.80370
.613	2.650	.42890	.04730	-1.15220	-.00310	-.00060	.00000	.02560	.01040	.78250
.613	3.790	.48430	.04340	-1.15250	-.00350	-.00070	.00000	.02540	.01020	.76770
.613	4.930	.54480	.03870	-1.15400	-.00210	-.00060	-.00020	.02540	.01030	.75390
.613	6.070	.60210	.03270	-1.15440	-.00270	-.00080	-.00020	.02550	.01020	.74620
.613	7.200	.66190	.02620	-1.15610	-.00330	-.00090	-.00010	.02570	.01030	.73870
.613	8.340	.72780	.01950	-1.15930	-.00290	-.00070	-.00020	.02550	.01030	.73230
.613	9.430	.78270	.01360	-1.15810	-.00040	-.00100	-.00030	.02560	.01040	.72620
.613	10.560	.83890	.00890	-1.16260	-.00100	-.00100	-.00030	.02610	.01050	.72130
.613	11.690	.89310	.00680	-1.16450	-.00040	-.00100	-.00060	.02670	.01070	.71800
.613	12.800	.96360	.00640	-1.15980	.00310	-.00100	-.00130	.02740	.01080	.71290
.613	13.880	1.00500	.00730	-.15870	.00220	-.00040	-.00070	.02830	.01080	.71000
.613	14.960	1.05630	.00740	-.15990	.00180	-.00050	-.00020	.02960	.01140	.70760
.613	16.050	1.10350	.00700	-.15840	.00140	-.00030	.00010	.03100	.01200	.70480
.613	16.290	1.16020	.00520	-.16070	.00280	-.00020	.00030	.03230	.01260	.70260
.613	17.160	1.23470	.00440	-.16760	.00070	-.00060	.00230	.03420	.01340	.70180
.613	19.420	1.30080	.00390	-.17010	.00190	-.00060	.00140	.03570	.01410	.70000
.613	20.460	1.34100	.00200	-.16610	.00420	.00020	-.00110	.03720	.01490	.69740
.613	21.550	1.37840	.00010	-.15910	.00340	.00140	-.00140	.03830	.01520	.69430
.613	22.650	1.40370	-.00180	-.14740	.00030	.00020	-.00080	.04010	.01570	.69040
.613	23.710	1.42880	-.00370	-.13620	.01310	.00270	-.00030	.04250	.01640	.68690
.613	24.790	1.45350	-.01400	-.11160	.00900	.00210	-.00040	.04430	.01750	.68010
.613	25.770	1.47000	-.02150	-.07340	-.00130	.00140	.00030	.04600	.01950	.67100
.613	26.730	1.53690	-.02000	-.03210	.02650	-.00070	-.00070	.05350	.02170	.66070
GRADIENT		.05137	-.00175	-.00096	-.00000	-.00001	-.00002	-.00011	-.00001	-.02479

0460 522 CT M4 F5 W111 E23 V7 R9

(RDR021) (16 AUG 73)

REFERENCE DATA

SREF = .6033 54. FT.
 LREF = 7.1222 INCHES
 BREF = 14.0902 INCHES
 SCALE = .0150 SCALE

XCRP = 12.6171 INCHES
 YCRP = .0000 INCHES
 ZCRP = 6.0000 INCHES

BETA = .0000 ELEVON = 15.000
 RUDDER = .0000 RUOPLR = 24.980
 BFLAP = 13.750 RN/L = 6.000

PARAMETRIC DATA

RUN NO. 6 / 1 RN/L = 7.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CV	CYN	CBL	CAB	CABC	XCP/L
.099	-1.930	.10130	.05875	-.13350	-.00570	.00030	.00030	.03260	.01300	1.13670
.099	-1.370	.19870	.06390	-.14300	-.00410	.00000	.00020	.02860	.01160	.91670
.099	-1.450	.27500	.06350	-.15260	-.00370	-.00020	-.00010	.02820	.01160	.65610
.099	1.610	.35490	.06710	-.16310	-.00350	-.00040	-.00020	.02810	.01160	.62120
.099	2.630	.43770	.06640	-.17520	-.00290	-.00060	-.00020	.02800	.01150	.79920
.099	4.040	.58010	.06940	-.18880	-.00310	-.00070	.00000	.02780	.01140	.78550
.099	5.220	.62070	.07040	-.20080	-.00310	-.00060	.00010	.02740	.01130	.77490
.099	6.390	.67340	.07140	-.21250	-.00360	.00050	.00070	.02760	.01130	.76800
.099	7.570	.72650	.07170	-.21100	-.00360	.00050	.00070	.02760	.01140	.75870
.099	8.700	.76560	.07250	-.21730	-.00330	-.00070	.00070	.02830	.01180	.75150
.099	9.610	.81450	.07180	-.20740	-.00350	-.00020	-.00020	.02930	.01220	.74560
.099	10.930	.85920	.07180	-.20660	-.00350	-.00020	.00030	.03020	.01260	.74040
.099	12.060	.91050	.07320	-.21110	-.00350	.00010	.00010	.03080	.01290	.73720
.099	13.200	.97030	.07540	-.22010	-.00160	.00020	.00010	.03200	.01330	.73530
.099	14.330	1.03300	.07630	-.22300	.00000	.00000	.00000	.03350	.01420	.73130
.099	15.440	1.09160	.07520	-.22200	.00000	-.00040	.00000	.03490	.01470	.72670
.099	16.540	1.13620	.07390	-.22700	-.00040	.00010	.00050	.03610	.01520	.72310
.099	17.700	1.18890	.07200	-.21280	.00010	-.00020	.00060	.03750	.01570	.71790
.099	18.840	1.23350	.06990	-.20120	.00280	-.00030	.00000	.03870	.01610	.71190
.099	19.960	1.26960	.06810	-.19200	.00100	-.00040	.00070	.04040	.01680	.70190
.099	21.090	1.30170	.06530	-.17880	.00240	-.00040	.00030	.04300	.01820	.70160
.099	22.130	1.3410	.06110	-.15130	.00000	.00010	.00010	.04660	.01950	.69380
.099	23.210	1.34760	.05520	-.13460	.02010	-.00840	-.00140	.05110	.02140	.68680
.099	24.310	1.35660	.05520	-.10320	.04780	-.01370	-.00360	.05520	.02320	.67980
.099	25.390	1.31830	.04780	-.07450	.00380	-.00940	-.00330	.05910	.02510	.67260
.099	26.380	1.34580	.04770	-.06080	.00980	-.01460	.00010	.06180	.02580	.66850
.099	27.460	1.39090	.03620	-.03620	.00340	-.00160	.00060	.06360	.02600	.66670
.099	28.530	1.42930	.03250	-.05830	.00620	-.00160	.00060	.06360	.02580	.66690
.099	GRADIENT	.06969	.00156	-.07925	.00041	-.00017	-.00009	-.00263	-.00022	-.05103

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TWT-276 (0A68)

PAGE 27

0A68 B22 C7 M4 F5 W11 E23 V7 R5

(KDR022) (16 AUG 75)

REFERENCE DATA

SRF = .6033 SQ.FT.
 LREF = 7.1222 INCHES
 BREF = 14.0502 INCHES
 SCALE = .0150 SCALE

YMRP = 12.6171 INCHES
 YMRP = .0000 INCHES
 ZMRP = 6.0000 INCHES

BETA = .0000 ELEVON = .0000
 RUDDER = .0000 RUFLR = 24.9
 BLAP = .0000 RN/L = 7.100

PARAMETRIC DATA

RUN NO. 17/ 1 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	COL	CAB	CABC	XCP/L
.612	-2.220	-1.9590	.02650	.04750	-.00550	.00010	-.00160	.02280	.00850	.74090
.612	-1.040	-.13160	.02620	.04690	-.00570	.00040	-.00160	.02300	.00860	.78300
.612	.190	-.07170	.02880	.04760	-.00640	.00020	-.00150	.02280	.00860	.09860
.612	1.280	-.01630	.02820	.04730	-.00500	.00020	-.00160	.02270	.00860	1.71660
.612	2.410	.03930	.02660	.04700	-.00550	.00010	-.00160	.02270	.00860	.21270
.612	3.550	.09560	.02400	.04710	-.00320	.00010	-.00170	.02250	.00840	.47040
.612	4.670	.14800	.01970	.04710	-.00380	.00010	-.00180	.02270	.00840	.53470
.612	5.800	.20550	.01450	.04680	-.00430	.00000	-.00160	.02280	.00830	.56830
.612	6.940	.26330	.00790	.04630	-.00270	.00000	-.00160	.02270	.00820	.58710
.612	8.070	.32820	.00060	.04670	-.00310	-.00010	-.00150	.02270	.00820	.59940
.612	9.190	.38680	-.00670	.04420	-.00320	-.00010	-.00190	.02310	.00830	.60980
.612	10.280	.45060	-.01330	.04270	-.00350	-.00030	-.00190	.02350	.00830	.61690
.612	11.400	.51760	-.01770	.04020	.00150	.00000	-.00150	.02380	.00860	.62320
.612	12.510	.57510	-.01980	.03650	.00310	-.00030	-.00140	.02420	.00880	.62850
.612	13.600	.63370	-.01860	.03320	.00470	-.00060	-.00160	.02480	.00910	.63250
.612	14.890	.69610	-.02020	.02810	.00460	-.00080	-.00150	.02600	.00970	.63700
.612	15.990	.76200	-.02190	.02320	.00650	-.00080	-.00160	.02690	.01010	.64080
.612	16.910	.8340	-.02480	.01620	.00670	-.00080	-.00150	.02800	.01060	.64250
.612	18.010	.95610	-.02610	.00940	.00680	-.00110	-.00080	.02890	.01100	.64520
.612	19.130	1.02250	-.02840	.00540	.00670	-.00100	-.00100	.03010	.01140	.64820
.612	20.220	1.06800	-.03180	.00430	.00720	-.00050	-.00070	.03140	.01190	.64990
.612	21.310	1.14670	-.03520	.00350	.00780	-.00080	-.00070	.03270	.01230	.65040
.612	22.410	1.19570	-.03890	.00350	.00980	-.00130	-.00090	.03420	.01280	.65120
.612	23.530	1.23670	-.04350	.01540	.00400	-.00170	-.00170	.03570	.01410	.64720
.612	24.530	1.25670	-.04920	.03450	.00220	-.00110	-.00160	.04020	.01550	.64170
.612	25.630	1.25030	-.05370	.05340	.00610	-.00040	-.00140	.04350	.01710	.63590
.612	26.990	.04960	-.00096	-.00002	.00020	-.00002	-.00003	-.00004	-.00002	-.05925

GRADIENT

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TWT-276 (M66)

PAGE 28

OASIS 822 C7 M4 F5 W111 E23 V7 R3

(R00023) (16 AUG 73)

REFERENCE DATA

SREF = .6033 30-FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 ZREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUFLR = 34.920
 FLAP = .000 RN/L = 7.000

RUN NO. 29/ 1 R/L = 7.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.209	-2.180	-1.9450	.12200	.09660	-.00810	-.00010	-.00110	.03540	.01640	.63510
1.209	-.870	-.09340	.11790	.07320	-.00370	-.00080	-.00120	.03950	.01650	.93450
1.209	.220	-.02470	.11690	.05690	-.00360	-.00080	-.00120	.03970	.01650	1.49920
1.209	1.390	.04770	.11320	.04080	-.00350	-.00010	-.00120	.04010	.01660	.33220
1.209	2.960	.12150	.11350	.02590	-.00340	-.00010	-.00110	.04060	.01660	.57350
1.209	3.750	.19280	.11170	.01100	-.00270	-.00030	-.00090	.04110	.01700	.63070
1.209	4.900	.26560	.10990	-.00350	-.00210	-.00030	-.00070	.04150	.01710	.65670
1.209	6.070	.33640	.10750	-.01690	-.00250	-.00030	-.00070	.04190	.01730	.67130
1.209	7.220	.40690	.10460	-.02900	-.00340	-.00060	-.00110	.04250	.01750	.67670
1.209	8.390	.48060	.10160	-.03940	-.00370	-.00060	-.00120	.04300	.01770	.68220
1.209	9.530	.54330	.09670	-.04250	-.00300	-.00100	-.00120	.04350	.01790	.68070
1.209	10.600	.60410	.09000	-.04630	-.00180	-.00090	-.00110	.04420	.01820	.68010
1.209	11.800	.66990	.09360	-.05260	-.00190	-.00090	-.00090	.04530	.01860	.68070
1.209	12.940	.73450	.09190	-.05750	-.00150	-.00070	-.00070	.04590	.01870	.68210
1.209	14.070	.80170	.09030	-.06500	-.00380	.00000	.00000	.04640	.01890	.68240
1.209	15.200	.86690	.08960	-.07190	-.00380	-.00020	.00000	.04720	.01920	.68250
1.209	16.330	.93000	.08670	-.07760	-.00610	.00120	.00110	.04810	.01970	.68410
1.209	17.460	1.00130	.08670	-.08780	-.00730	.00090	.00100	.04910	.02030	.68450
1.209	18.620	1.06400	.08410	-.09450	-.00590	.00050	.00030	.05030	.02100	.68350
1.209	19.740	1.11870	.08190	-.09810	-.00780	.00100	.00090	.05120	.02140	.68180
1.209	20.860	1.17080	.07740	-.09930	-.00980	.00160	.00080	.05240	.02170	.67920
1.209	21.960	1.21560	.07470	-.09920	-.00950	.00160	.00080	.05240	.02190	.67700
1.209	23.090	1.26030	.07200	-.09810	-.00930	.00140	.00070	.05300	.02220	.67490
1.209	24.220	1.30190	.06870	-.09140	-.00800	.00120	.00020	.05370	.02250	.67320
1.209	25.330	1.34450	.06500	-.07790	-.00640	.00020	.00020	.05430	.02260	.67120
1.209	26.420	1.39060	.06160	-.07510	-.00580	.00020	.00020	.05510	.02280	.66980
1.209	27.610	1.43640	.05630	-.07000	-.00460	.00010	.00010	.05609	.02300	.66302
1.209	GRADIENT	.16428	-.00163	-.01395	.00080	-.00003	.00006			

REFERENCE DATA

SREF = .6033 50 T.
LREF = 7.1222 INCHES
BREF = 14.0502 INCHES
SCALE = .0150 SCALE

12.6171 INCHES
.0000 INCHES
6.0000 INCHES

PARAMETRIC DATA

BETA	=	.000	ELEVON	=	.000
RUGGER	=	.000	RUGFLR	=	54.920
RFLAP	=	13.750	RN/L	=	7.000

RUN NO. 30/1 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 02 OCT 73

TABULATED SOURCE DATA NR-TVT-278 (0466)

PAGE 30

QAS8 822 C7 M4 F5 W111 E23 V7 R5

(RDR025) (16 AUG 73)

REFERENCE DATA

SREF = .8033 36 FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUDDLR = 54.920
 BFLAP = 13.750 RM/L = 11.100

RUN NO. 36/ 1 RM/L = 11.10 GRADIENT INTERVAL = -.5.00/ 3.00

MACH	ALPHA	CN	CAP	CLM	CY	CYN	CEL	CAB	CABC	XCP/L
1.998	-.720	-.04340	.12330	.00070	-.00270	-.00030	-.00010	.01640	.00930	.69860
1.998	.190	-.00070	.11750	-.00550	-.00160	-.00020	-.00020	.02160	.00950	-1.91230
1.998	1.020	.03540	.11620	-.01090	-.00110	-.00030	-.00020	.02200	.00950	.76370
1.998	1.660	.07130	.11450	-.01630	-.00130	-.00040	-.00010	.02210	.00950	.73820
1.998	2.770	.10770	.11220	-.02160	-.00060	-.00050	-.00010	.02220	.00950	.72370
1.998	3.690	.14400	.11000	-.02690	-.00090	-.00050	-.00020	.02220	.00940	.72130
1.998	4.520	.17970	.10840	-.03210	-.00110	-.00050	-.00020	.02210	.00930	.71760
1.998	5.390	.21460	.10730	-.03690	-.00100	-.00050	-.00010	.02210	.00930	.71310
1.998	6.270	.24920	.10690	-.04190	-.00120	-.00050	-.00010	.02210	.00930	.71140
1.998	7.170	.28460	.10600	-.04610	-.00140	-.00050	-.00010	.02200	.00930	.70910
1.998	8.040	.31690	.10480	-.04910	-.00160	-.00050	-.00010	.02200	.00940	.70640
1.998	8.840	.35120	.10320	-.05210	-.00180	-.00050	-.00010	.02200	.00940	.70360
1.998	9.710	.38650	.10160	-.05460	-.00190	-.00050	.00000	.02240	.00950	.70160
1.998	10.590	.42160	.10000	-.05720	-.00220	-.00050	.00000	.02250	.00950	.69930
1.998	11.460	.45960	.09840	-.05930	-.00160	-.00020	.00000	.02260	.00950	.69790
1.998	12.340	.49670	.09690	-.06230	-.00160	-.00010	.00000	.02270	.00960	.69650
1.998	13.240	.53670	.09470	-.06500	-.00210	.00000	.00000	.02280	.00970	.69530
1.998	14.140	.57590	.09370	-.06770	-.00210	.00000	.00000	.02290	.00980	.69420
1.998	15.010	.61090	.09260	-.07020	-.00210	.00000	.00000	.02310	.00960	.69330
1.998	15.830	.64260	.09230	-.07230	-.00200	.00000	.00010	.02310	.00960	.69330
1.998	16.630	.67227	-.00261	-.07461	.00029	-.00006	-.00001	.00051	-.00001	.21765

GRADIENT

OAG 822 CT M4 F5 W111 E23 V7 R5

(R00026) (16 AUG 73)

REFERENCE DATA

SPOT = .6033 34 FT. XHP = 12.6171 INCHES
 LREF = 7.1222 INCHES YHP = .0000 INCHES
 BREF = 14.0902 INCHES ZHP = 6.0000 INCHES
 SCALE = .0190 SCALE

BETA = .000 ELEVON = .000
 RUDDER = .000 RUSSFLR = 34.820
 BFLAP = 13.750 RN/L = 11.100

PARAMETRIC DATA

RUN NO. 37/ 1 RN/L = 11.10 GRADIENT INTERVAL = -.5.00/ 5.00

MAON	ALPHA	ON	CAF	CLW	CT	CYN	COL	CAB	CASC	XCP/L
1.998	13.880	.54360	.09600	-.06850	-.00220	.00000	.00010	.01840	.00970	.69640
1.998	14.840	.61330	.09350	-.07180	-.00260	-.00010	.00020	.02180	.00990	.69490
1.998	15.530	.65370	.09280	-.07490	-.00270	-.00010	.00020	.02190	.01000	.69450
1.998	16.400	.69170	.09180	-.07820	-.00310	-.00010	.00010	.02210	.01010	.69350
1.998	17.280	.73020	.09040	-.08140	-.00330	.00000	.00000	.02240	.01020	.69290
1.998	18.170	.77020	.08900	-.08410	-.00320	.00010	.00000	.02270	.01030	.69210
1.998	19.070	.80930	.08770	-.08710	-.00310	.00020	.00000	.02290	.01040	.69160
1.998	19.970	.85010	.08630	-.08920	-.00340	.00020	.00010	.02350	.01050	.69090
1.998	20.870	.89130	.08470	-.09370	-.00330	.00040	.00010	.02380	.01070	.69000
1.998	21.790	.93370	.08320	-.09680	-.00290	.00030	.00020	.02400	.01080	.68990
1.998	22.680	.97550	.08100	-.10070	-.00360	.00070	.00020	.02430	.01090	.68960
1.998	23.570	1.01650	.07920	-.10490	-.00370	.00080	.00020	.02460	.01100	.68970
1.998	24.480	1.05900	.07750	-.10890	-.00330	.00110	.00010	.02490	.01110	.68970
1.998	25.360	1.10220	.07520	-.11330	-.00390	.00100	.00020	.02510	.01130	.68930
1.998	26.250	1.14540	.07250	-.11670	-.00260	.00110	.00020	.02540	.01140	.68910
1.998	27.140	1.18840	.06990	-.12020	-.00270	.00100	.00040	.02560	.01150	.68790
1.998	28.080	1.22470	.06370	-.12370	-.00270	.00120	.00020	.02580	.01130	.68740
1.998	28.900	1.26520	.06460	-.12230	-.00260	.00090	.00020	.02600	.01150	.68690
1.998	29.800	1.30740	.06280	-.12450	-.00200	.00110	.00020	.02610	.01130	.68640
1.998	30.680	1.34710	.06110	-.12640	-.00150	.00110	.00020	.02630	.01130	.68650
1.998	31.480	1.38900	.06020	-.12920	-.00170	.00090	.00040	.02630	.00011	-.00049
1.998	GRADIENT	.04600	-.00211	-.00355	.00003	.00008	.00001	.00033		

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TWT-276 (0498)

PAGE 32

0468 B22 C7 M4 F5 M111 E23 V7 R5

(NR0288) (16 AUG 75)

REFERENCE DATA

SRCP = .8033 86.171 INCHES
LRCP = 7.1222 INCHES
SRCP = 14.0502 INCHES
SCALE = .0150 SCALE

YMRP = 12.6171 INCHES
YMRP = .0000 "ALICES
ZMRP = 6.0000 INCHES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 RUDDLR = 54.980
SPLAP = 19.750 RN/L = 11.100

RUN NO. 44/1 RN/L = 11.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CEL	CAB	CABC	XCP/L
3.010	13.830	.39980	.08290	-.04120	.00010	-.00060	.00010	.00120	.00310	.88980
3.010	14.750	.43680	.08580	-.04470	.00060	-.00050	.00000	.00000	.00440	.88990
3.010	15.590	.46870	.08510	-.04630	-.00030	-.00050	.00010	.00630	.00440	.88930
3.010	16.430	.49980	.08430	-.04890	.00000	-.00040	.00010	.00810	.00430	.88780
3.010	17.240	.52990	.08320	-.05050	.00040	-.00030	.00010	.00790	.00460	.88700
3.010	18.130	.56420	.08200	-.05290	-.00050	-.00020	.00010	.00730	.00470	.88640
3.010	19.010	.59990	.08060	-.05570	.00000	.00000	.00010	.00760	.00480	.88610
3.010	19.910	.63590	.07960	-.05830	-.00020	.00000	.00010	.00790	.00480	.88580
3.010	20.790	.67090	.07860	-.06180	-.00060	.00010	.00010	.00820	.00490	.88580
3.010	21.690	.70760	.07790	-.06480	-.00030	.00020	.00010	.00840	.00490	.88590
3.010	22.570	.74540	.07700	-.06790	-.00070	.00040	.00010	.00860	.00500	.88520
3.010	23.430	.78270	.07600	-.07100	-.00060	.00050	.00010	.00890	.00500	.88530
3.010	24.330	.82120	.07520	-.07480	-.00070	.00070	.00010	.00910	.00510	.88540
3.010	25.210	.86120	.07420	-.07890	-.00130	.00060	.00010	.00930	.00510	.88540
3.010	26.080	.90190	.07330	-.08240	-.00140	.00100	.00010	.00940	.00520	.88590
3.010	26.970	.94220	.07220	-.08440	-.00160	.00110	.00010	.00960	.00520	.88580
3.010	27.890	.98190	.07070	-.09200	-.00200	.00140	.00030	.00980	.00520	.88560
3.010	28.660	1.01990	.06990	-.09900	-.00130	.00180	.00000	.00990	.00520	.88560
	GRADIENT	.04156	-.00126	-.00351	-.00014	.00014	.00000	.00036	.00009	-.000124

0468 822 C7 M4 F5 W111 E23 V7 R5

(R00027) (16 AUG 73)

REFERENCE DATA

BREF = .0033 30-FT.
LREF = 7.1222 INCHES
BREF = 14.0502 INCHES
SCALE = .0150 SCALE

XMRP = 12.6171 INCHES
YMRP = .0000 INCHES
ZMRP = 6.0000 INCHES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 RUOFLR = 24.920
DEFLAP = 13.730 RN/L = 7.100

RUN NO. 16/ 1 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	ICP/L
.613	-2.150	-1.13740	.02870	.00910	-.00510	-.00030	-.00150	.02540	.01030	.67830
.613	-.970	-.06880	.03020	.00830	-.00640	.00000	-.00150	.02540	.01040	.69380
.613	.100	-.01780	.03090	.00920	-.00490	.00010	-.00150	.02530	.01030	.64150
.613	1.250	.03470	.03070	.00770	-.00320	.00000	-.00150	.02520	.01030	.57020
.613	2.390	.09280	.02880	.00630	-.00440	-.00010	-.00150	.02500	.01030	.61660
.613	3.520	.14780	.02380	.00770	-.00480	-.00040	-.00170	.02510	.01030	.63250
.613	4.650	.20300	.02140	.00760	-.00500	-.00040	-.00170	.02500	.01030	.63790
.613	5.790	.26790	.01610	.00550	-.00390	-.00090	-.00160	.02510	.01040	.64430
.613	6.940	.32810	.00980	.00580	-.00430	-.00070	-.00150	.02520	.01030	.64530
.613	8.070	.38240	.00280	.00390	-.00340	-.00030	-.00170	.02540	.01030	.64890
.613	9.170	.44780	-.00430	.00180	-.00080	-.00090	-.00210	.02530	.01030	.65030
.613	10.270	.50860	-.01040	.00130	.00130	-.00140	-.00160	.02570	.01060	.65340
.613	11.390	.57170	-.01440	.00240	.00360	-.00160	-.00160	.02600	.01080	.65440
.613	12.530	.63460	-.01630	.00440	.00350	-.00030	-.00110	.02640	.01090	.65600
.613	13.600	.68830	-.01640	.00770	.00430	-.00080	-.00160	.02740	.01130	.65790
.613	14.690	.73750	-.01740	.01240	.00540	-.00090	-.00190	.02820	.01140	.65920
.613	15.760	.81660	-.01870	.01630	.00670	-.00120	-.00190	.02930	.01150	.66030
.613	16.800	.87790	-.02010	.02070	.00690	-.00130	-.00090	.03110	.01210	.66210
.613	17.990	.93760	-.02120	.02620	.00690	-.00130	-.00100	.03240	.01270	.66370
.613	19.110	1.01010	-.02250	.03240	.00730	-.00130	-.00110	.03410	.01310	.66440
.613	20.210	1.08670	-.02440	.03690	.00690	-.00070	-.00220	.03580	.01360	.66450
.613	21.290	1.14710	-.02730	.03930	.00830	.00010	-.00350	.03750	.01420	.66360
.613	22.410	1.20740	-.02790	.03870	.00930	.00070	-.00370	.03900	.01470	.66230
.613	23.520	1.25880	-.03480	.03570	.00820	.00150	-.00230	.04080	.01560	.66010
.613	24.590	1.30220	-.03940	.02930	.00680	.00150	-.00230	-.00007	-.00220	-.01476
	GRADIENT	.04948	-.01104	-.00021	.00012	-.00004	-.00003	-.00007	-.00220	

OAGS 622 C7 M4 P5 V7 R5

(R00028) (16 AUG 73)

REFERENCE DATA

SRP = .6033 50.FT.
 LREF = 7.1222 INCHES
 SRP = 14.0302 INCHES
 SCALE = .0150 SCALE

XRP = 12.1171 INCHES
 YRP = .0000 INCHES
 ZRP = 6.0000 INCHES

PARAMETRIC DATA

BETA = .000 RUCCER = .000
 RUOPLR = 24.920 BFLAP = -14.250
 RNVL = 7.200

RUN NO. 19/ 1 RNVL = 7.20 GRADIENT INTERVAL = -5.00/ 5.00

MOON	ALPHA	CN	CAF	CLM	CT	CYN	CBL	CAB	CABC	XCP/L
.612	-2.080	-.07340	.02430	.01990	-.00460	.00020	-.00070	.02960	.01050	.75170
.612	-.970	-.04320	.02440	.02630	-.00660	.00020	-.00060	.02880	.01040	.60070
.612	.030	-.05080	.02400	.02980	-.00800	.00030	-.00080	.02850	.01040	.64560
.612	1.180	-.03130	.02340	.03510	-.00590	.00020	-.00070	.02790	.01000	.67420
.612	2.240	-.04450	.02300	.04010	-.00330	.00030	-.00070	.02740	.00990	.96340
.612	3.320	-.03420	.02270	.04520	-.00310	.00030	-.00070	.02670	.00960	1.11130
.612	4.390	-.03050	.02180	.05010	-.00090	.00010	-.00070	.02640	.00950	1.25670
.612	5.460	-.02330	.02130	.05490	-.00590	.00020	-.00060	.02570	.00920	1.51660
.612	6.540	-.01610	.02050	.05960	-.00370	.00000	-.00060	.02560	.00920	2.03700
.612	7.610	-.01070	.01960	.06370	-.00490	.00000	-.00060	.02530	.00880	2.94660
.612	8.690	-.00400	.01890	.07030	-.00460	.00020	-.00060	.02540	.00890	7.07460
.612	9.700	.00660	.01790	.07430	-.00440	.00010	-.00050	.02520	.00880	-3.36310
.612	10.750	.01430	.01670	.07850	-.00450	.00000	-.00050	.02560	.00880	-1.36340
.612	11.810	.02260	.01570	.08220	-.00520	.00000	-.00050	.02620	.00890	-.67250
.612	12.860	.03150	.01390	.08760	-.00460	.00000	-.00050	.02670	.00900	-.37160
.612	13.860	.04020	.01270	.09250	-.00400	-.00010	-.00040	.02730	.00920	-.19100
.612	14.930	.05000	.01110	.09690	-.00430	-.00010	-.00040	.02760	.00930	-.03340
.612	15.980	.06090	.00930	.10120	-.00470	-.00010	-.00040	.02860	.00930	.05920
.612	17.030	.07900	.00740	.10600	-.00410	.00000	-.00040	.02940	.00930	.11770
.612	18.080	.09620	.00550	.11070	-.00430	-.00010	-.00040	.03060	.00940	.16070
.612	19.110	.09600	.00390	.11470	-.00350	-.00020	-.00030	.03260	.00950	.21230
.612	20.130	.10770	.00170	.11840	-.00360	-.00020	-.00030	.03140	.00950	.24750
.612	21.160	.12110	-.00060	.12290	-.00230	-.00050	-.00020	.03220	.00950	.27960
.612	22.240	.13820	-.00300	.12660	-.00280	-.00060	-.00020	.03370	.00970	.29970
.612	23.280	.14440	-.00510	.13020	-.00230	-.00060	-.00020	.03390	.00970	.32070
.612	24.310	.16300	-.00730	.13360	-.00210	-.00050	-.00020	.03470	.00960	.33010
.612	25.350	.17760	-.00980	.13630	-.00140	-.00060	-.00010	.03540	.00980	.36330
.612	GRADIENT	.00663	-.00039	.00459	-.00005	-.00000	.00001	-.00049	-.00017	.07239

0A68 B22 C7 M4 F5 V7 R5

(RDR029) (16 AUG 73)

REFERENCE DATA

SREF = .8033 SQ.FT. XMRP = 12.6171 INCHES
 LREF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 RUOCER = .000
 RUPLR = 34.920 BFLAP = -14.230
 RV/L = 7.100

RUN NO. 25/ 1 RV/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.206	-1.990	-.09230	.10460	.05950	-.00370	.00030	.00000	.03600	.01710	.88890
1.206	-.850	-.08180	.09760	.06900	-.00300	.00020	.00000	.04130	.01750	.94440
1.206	.170	-.07290	.09590	.07000	-.00320	.00010	.00000	.04140	.01740	1.00510
1.206	1.260	-.06460	.09420	.07550	-.00460	.00010	.00000	.04140	.01730	1.06160
1.206	2.370	-.05480	.09290	.08000	-.00480	.00000	.00000	.04160	.01740	1.18890
1.206	3.460	-.04620	.09180	.08560	-.00480	-.00010	.00000	.04160	.01730	1.33330
1.206	4.540	-.03800	.09040	.09100	-.00490	-.00010	.00000	.04160	.01730	1.53340
1.206	5.620	-.02870	.08900	.09710	-.00490	-.00020	.00000	.04150	.01720	1.89680
1.206	6.710	-.02040	.08780	.10360	-.00490	-.00030	.00000	.04130	.01710	2.51900
1.206	7.810	-.01330	.08690	.11060	-.00420	-.00040	.00000	.04110	.01690	5.02320
1.206	8.970	.00240	.08660	.11650	-.00400	-.00020	.00000	.04100	.01670	-17.13000
1.206	9.940	.01270	.08580	.12280	-.00410	-.00040	.00000	.04120	.01660	-2.89660
1.206	11.020	.02660	.08480	.12970	-.00390	-.00050	.00000	.04130	.01660	-1.13690
1.206	12.090	.03990	.08390	.13690	-.00380	-.00060	.00000	.04140	.01670	-.60810
1.206	13.150	.05430	.08270	.14440	-.00350	-.00070	.00010	.04150	.01690	-.32690
1.206	14.200	.07210	.08140	.15160	-.00350	-.00080	.00010	.04140	.01700	-.12110
1.206	15.270	.08990	.08020	.15830	-.00260	-.00080	.00010	.04170	.01720	.00440
1.206	16.360	.10940	.07860	.16410	-.00270	-.00100	.00020	.04230	.01750	.09990
1.206	17.460	.13240	.07690	.16990	-.00270	-.00120	.00030	.04310	.01790	.17970
1.206	18.540	.15380	.07490	.17510	-.00220	-.00140	.00040	.04400	.01840	.23260
1.206	19.620	.17660	.07250	.18180	-.00150	-.00160	.00040	.04470	.01870	.27320
1.206	20.690	.19880	.06980	.18770	-.00220	-.00140	.00040	.04530	.01900	.30430
1.206	21.790	.22290	.06680	.19360	-.00250	-.00140	.00040	.04600	.01930	.33220
1.206	22.880	.24520	.06360	.20110	-.00220	-.00160	.00050	.04650	.01950	.35010
1.206	23.960	.26580	.05970	.20840	-.00210	-.00170	.00050	.04680	.01930	.36140
1.206	25.020	.28640	.05530	.21750	-.00240	-.00180	.00050	.04680	.01930	.37240
1.206	26.080	.30730	.05210	.22630	-.00300	-.00170	.00060	.04700	.01930	.38060
1.206		.00629	-.00166	.00479	.00011	-.00006	.00000	.00056	.00001	.09324

GRADIENT

TABULATED SOURCE DATA NR-TWT-276 (0468)

0468 819 C7 H4 F5 W107 E23 V7 R5

(NR0350) (16 AUG 73)

REFERENCE DATA

BREF = .6353 SQ.FT. XMRP = 12.6171 INCHES
 UNRF = 7.1222 INCHES YMRP = .0000 INCHES
 BREF = 14.0902 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0170 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 RUDDER = .000 RUFLR = 54.920
 SFLAP = -14.250 RN/L = 7.000

RUN NO. 24/ 1 RN/L = 7.00 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
1.207	-2.150	-1.9380	.11610	.09590	-.00610	.00050	-.00010	.03780	.02070	.63390
1.207	-1.850	-1.1050	.11560	.07420	-.00590	.00050	.00000	.03610	.02060	.61040
1.207	.180	-.03500	.11470	.05930	-.00600	.00040	-.00010	.03620	.02080	1.27470
1.207	1.370	.03600	.11340	.04410	-.00550	.00040	-.00010	.03650	.02090	.22590
1.207	2.550	.10960	.11160	.02990	-.00560	.00040	-.00020	.03690	.02110	.55140
1.207	3.710	.17740	.11010	.01560	-.00360	.00030	.00000	.03910	.02110	.61910
1.207	4.870	.24640	.10800	.00230	-.00310	.00020	.00000	.03920	.02120	.64630
1.207	6.040	.31900	.10600	-.01050	-.00230	.00020	.00010	.03930	.02130	.66470
1.207	7.250	.36930	.10320	-.02140	-.00200	.00020	.00070	.03960	.02140	.67210
1.207	8.400	.45000	.09960	-.03210	-.00130	.00010	.00090	.03990	.02160	.67760
1.207	9.530	.52380	.09650	-.03700	-.00120	.00020	.00190	.04020	.02180	.67790
1.207	10.650	.57610	.09280	-.03440	-.00200	.00080	.00040	.04110	.02210	.67180
1.207	11.810	.64380	.08990	-.03770	.00090	-.00020	-.00020	.04170	.02271	.67310
1.207	12.970	.70830	.08650	-.04330	.00190	-.00030	.00000	.04240	.02310	.67410
1.207	14.110	.77540	.08430	-.04780	.00540	-.00120	.00050	.04320	.02360	.67450
1.207	15.230	.83920	.08220	-.05300	.00680	-.00200	-.00080	.04400	.02390	.67510
1.207	16.360	.90440	.07960	-.05870	.00680	-.00220	-.00060	.04510	.02440	.67560
1.207	17.520	.97390	.07580	-.06840	.00450	-.00080	.00020	.04610	.02500	.67770
1.207	18.670	1.03840	.07270	-.07330	.00300	-.00010	.00090	.04700	.02540	.67790
1.207	19.810	1.09920	.06830	-.07750	.00420	-.00070	.00090	.04820	.02590	.67770
1.207	20.920	1.15320	.06430	-.07660	.00550	-.00110	.00070	.04690	.02620	.67730
1.207	22.030	1.20180	.06070	-.07440	.00600	-.00220	.00060	.04950	.02690	.67470
1.207	23.170	1.23940	.05820	-.06340	.00820	-.00210	.00060	.05000	.02690	.67070
1.207	24.310	1.26900	.05660	-.06130	.00640	-.00140	.00120	.05060	.02740	.66940
1.207	25.420	1.32660	.05380	-.05470	.00630	-.00140	.00160	.05190	.02800	.66700
1.207	26.520	1.37330	.04990	-.05030	.00660	-.00160	.00210	.05290	.02850	.66530
1.207	27.600	1.41800	.04640	-.04690	.00630	-.00170	.00190	.05360	.02860	.66400
1.207	GRADIENT	.06210	-.00117	-.01306	.00043	-.00006	.00001	.00021	.00007	-.05716

DATE 02 OCT 75

TABULATED SOURCE DATA NR-TWT-276 (0A68)

PAGE 37

0A68 B19 C7 M4 F5 M07 E23 V7 R5

(RDR031) (18 AUG 75)

REFERENCE DATA

XREF = .0055 SQ.FT. XMRP = 12.6171 INCHES
 YREF = 7.1222 INCHES YMRP = .0000 INCHES
 ZREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = .000
 RUDDER = .000 RUDDLR = 24.980
 BFLAP = -14.250 RN/L = 7.100

PARAMETRIC DATA

RUN 10. 25/ 1 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CN	CAF	CLM	CY	CYN	CBL	CAB	CABC	XCP/L
.606	-2.220	-.20700	.02640	.03740	-.00820	.00030	-.00060	.02270	.01130	.75400
.606	-1.100	-.14830	.02840	.05640	-.00820	.00030	-.00070	.02260	.01140	.79190
.606	.060	-.09130	.02920	.05580	-.00820	.00030	-.00060	.02250	.01120	.88080
.603	1.220	-.03360	.02870	.05640	-.00700	.00030	-.00070	.02220	.01120	1.26790
.606	2.360	.02550	.02740	.05690	-.00610	.00040	-.00060	.02200	.01100	-.16770
.606	3.320	.07520	.02450	.05600	-.00600	.00030	-.00060	.02200	.01090	.37760
.606	4.640	.13260	.02070	.05610	-.00700	.00020	-.00070	.02200	.01090	.49590
.606	5.770	.19030	.01570	.05550	-.00400	.00020	-.00060	.02140	.01060	.54450
.606	6.920	.24610	.00920	.05530	-.00320	.00020	-.00060	.02140	.01050	.56970
.606	8.030	.30410	.00250	.05540	-.00360	-.00010	-.00070	.02110	.01030	.58480
.606	9.110	.36180	-.00320	.05540	-.00180	.00013	-.00080	.02120	.01050	.59550
.606	10.230	.42720	-.01330	.05620	-.00010	.00020	-.00090	.02120	.01050	.60340
.606	11.360	.49270	-.02150	.05550	.00010	.00013	-.00110	.02150	.01070	.61050
.606	12.470	.55070	-.02640	.05450	.00060	.00030	-.00120	.02160	.01090	.61540
.606	13.570	.61650	-.03320	.05420	.00290	.00030	-.00160	.02230	.01130	.61980
.606	14.670	.68980	-.03950	.05100	.00690	-.00170	-.00320	.02300	.01160	.62460
.606	15.780	.75390	-.04170	.04760	.00870	-.00270	-.00320	.02380	.01190	.62860
.606	16.900	.82440	-.04280	.04290	.00680	-.00310	-.00210	.02470	.01230	.63270
.606	18.000	.88490	-.03830	.03490	.00310	.00050	.00040	.02610	.01270	.63730
.606	19.110	.95180	-.03780	.03020	.00160	.00100	.00090	.02760	.01330	.64010
.606	20.220	1.02350	-.03910	.02480	.00480	.00140	-.00020	.02980	.01400	.64290
.606	21.320	1.10450	-.04160	.01930	.00570	.00120	.00020	.03180	.01480	.64540
.606	22.430	1.16590	-.04390	.01890	.00530	-.00020	.00260	.03340	.01560	.64590
.606	23.540	1.21240	-.04660	.02320	.00490	.00020	.00150	.03530	.01640	.64480
.606	24.610	1.24750	-.05010	.03370	.00530	-.00080	.00190	.03740	.01750	.64190
.606	25.640	1.23420	-.05160	.06230	.01240	-.00300	.00050	.04020	.01920	.63330
.606	26.550	1.19020	-.05160	.08740	.01100	-.00520	.00050	.04440	.02140	.62700
.606	GRADIENT	.04924	-.00083	-.00014	.00013	-.00002	.00002	-.00012	-.00007	-.08266